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## ORIGINAL ARTICLES.

### THE RADICAL TREATMENT OF UTERINE CANCER.

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IN uterine cancer, if the vagina is not implicated, if the disease has not travelled along into the broad ligaments, and if the womb has not been fixed by adhesions, the immediate and remote success attending the operation of the removal of the womb is an extremely satisfactory one. The averages of immediate and permanent recovery compete most successfully with those of the excision of the breast for cancer. Thus, of 311 cases of vaginal hysterectomy performed up to the end of 1886, compiled by A. Martin, 47 died from the operation, giving a percentage of 15.1 per cent. Individual operators have done better than this, Leopold having lost but 4 of 80 vaginal hysterectomies, and Staude 1 of 22. On the other hand, of 778 cases of excision of the breast collected by Koester, the immediate mortality reached 15.6 per cent.

These figures, however, do not afford a basis of legitimate comparison between the immediate success of the two operations, because vaginal hysterectomy is a young operation, and every known case of extirpation of the womb for cancer is given. It therefore includes the earliest operations, performed long before the technique had been improved; whereas the operation for the removal of the breast has been accepted from time immemorial, and its technique has been long perfected. As regards permanent success, cancer of the breast is discovered earlier and is therefore operated on earlier, while cancer of the womb is rarely discovered until it has so far advanced as to have insidiously implicated contiguous and continuous structures. Even when it is discovered, being seated in an unseen organ, its dangers are not realized, and operative interference is liable to be postponed. Hence one would infer a larger measure of permanent success in mammary cancer. Yet, from personal statements lately made to me by several German operators that have become more expert, and who are now more careful in the selection of their cases, I am thoroughly convinced that the removal of the uterus *per vaginam* for cancer far surpasses in its remote, or permanent, success not only all other operations for cancer of the womb,

but also all operations for cancer in other parts of the body.

Nor need we wonder at this success, because the lip, breast, penis, and rectum, which are the favorite sites of cancer, are integral parts and parcels of the body, while the womb is to the body only an appendage, which is merely suspended by stays and guys, and those of a different material.

This opinion is substantiated by the remarkable statistics of the Dresden Klinik brought up to date (*Medical and Surgical Reporter*, November 21, 1891, p. 834; from *Archiv für Gynäkologie*, Band xl, Heft 2). In these Leisse presents a tabulated statement of the histories of all of the patients, so far as they could be obtained. These histories are compiled with great care. Of 80 patients that were heard from upwards of two years after the operation, 56.25 per cent. were still living. As 8 of the deaths were not due to a recurrence of the disease, the actual mortality was only 17.8 per cent. Thirty-seven of the 45 surviving patients were examined at the klinik, so that there was no question as to their local condition; and in the other cases reports were received from competent physicians. The following are the facts: Of 80 patients examined over two years after the operation, 45 were free from recurrence; 56.6 per cent. (of 58 patients examined) were well after three years; 59.5 per cent. (of 42) after four years; 60 per cent. (of 30) after five years; 66.6 per cent. (of 9) after six years; and the 2 patients that had survived the operation seven years were perfectly well. The best showing, however, is by Leopold, who states that out of 76 of his cases remaining under observation after recovery, 72 were still well, without recurrence of the disease, from one to five and a half years after the operation.

Undoubtedly the general consent of gynecologists has fixed upon the vagina as the best channel through which the womb should be extirpated, whether for cancer, for incurable prolapse, or for fibroid tumor, provided the womb is not unduly enlarged—that is to say, provided the womb is small enough to be delivered through the vagina and vulva. But the same unanimity does not exist with regard to the technique of the operation.

Some surgeons, at the head of whom stand Péan and Richelot, secure the broad ligaments, either in sections by several catch-forceps, or, as a whole, by a single clamp on either side. Many, perhaps the majority of American gynecologists, have adopted

this mode of procedure, and there is hardly one, not excluding myself, who has not invented a special form of clamp. This is usually a more rapid mode of operating, and the clamps are kept on only from forty-eight hours to three days; but it has its objections. First, the ends of the clamps, or the beaks of some of the forceps placed higher up, must protrude into the peritoneal cavity of the pelvis, which therefore cannot, as in the other operations, be closed above them, so as to make the stumps extra-peritoneal; consequently, from the breaking down of the tissues in the bite of these instruments, the pelvic and intestinal peritoneum is liable to be infected by putrilage. Again, the large, open channel between the abdomen and the vagina invites contamination of the contents of the former. Further, the obstruction of the vagina by the presence of such bulky instruments makes the removal of the more remote tubes and ovaries difficult, if not in some cases impossible. Finally, as Mundé observes: "They are said to produce sloughing and adhesions of intestines and omentum to the edges of the wound, and hence we believe many operators who formerly employed them have returned to the use of the progressive silk sutures." (*Diseases of Women*, p. 586.)

The objections to the progressive silk ligatures are, in my opinion, less grave, and they are as follows: When applied to the short and dense stumps of the broad ligaments they are liable to slip off. Then, again, it is true that while by their use most of their knots and the included portions of the broad ligaments can be made extra-peritoneal by closing the roof of the vagina above them, some of the knots of the upper ligatures will usually lie in the peritoneal cavity. Consequently, as one of each of the free extremities of the silk ligatures must not be cut off, but be left long, in order to facilitate their ultimate removal, there will be a liability of capillary drainage along these ligatures from the dirty vagina into the peritoneal cavity. This invites blood-poisoning, or, what is not uncommon, local abscesses, because the knot, which may hang on for three or four weeks, becomes converted into a septic foreign body.

Now, catgut ligatures are not open to these objections. If applied fresh from the alcoholic solution in which it is kept, and unmoistened by water, catgut swells up immediately, and binds more firmly than before the tissues around which it is tied. It is therefore, in my opinion, less liable to slip off than is silk. I have, indeed, never known a catgut ligature to slip, even when applied to the short and thick broad ligaments of a fibroid tumor, and to its very large bloodvessels, which have to be tied during the operation of supra-vaginal hysterectomy. Then, again, in vaginal hysterectomy the catgut

ligature has this very great advantage over the silk ligature, that every ligature, high or low, can be cut off close to its knot. Hence, those knots left in the abdominal cavity are not only absorbable, and therefore less likely to become foreign bodies, but by the sewing up of the wound in the vaginal roof, also by catgut, they are cut off from the vagina and therefore from vaginal contamination. Lastly, all the extra-peritoneal ligatures will take care of themselves by absorption, and do not need, weeks after the operation, repeated vaginal examinations and repeated tugs before they can be dislodged.

The technique that I now prefer to follow is a blending of what seems to me to be the best points in Martin's and Olshausen's operations. The cervix is first thoroughly curetted and afterward charred by Paquelin's thermo-cautery. The funnel-shaped excavation is next stuffed with iodoform gauze, and its lips are sewed closely together by a continuous suture. These precautions are taken to prevent contamination of the peritoneum from any uterine leakage. The vagina now gets a thorough cleansing with soap and water, and is swabbed out with a 1 : 1000 mercuric chloride solution. The woman being placed in the lithotomy position, and the vagina opened by a short duck-bill speculum and two retractors, the cervix uteri is seized with a double tenaculum forceps, dragged downward and forward, and Douglas's pouch opened. Aided by the forefinger of the left hand in the opening, quilted sutures of catgut, with intervening spaces between them, are passed, uniting the edge of the peritoneum to that of the posterior vaginal wall. In proportion as the incision is prolonged on either side up to the insertion of the broad ligaments, additional sutures are put in. The object of these is to stop all hemorrhage and to prevent the stripping off of the peritoneum during the subsequent manipulations. To protect the peritoneal cavity and to keep the intestines from protruding, a sponge or a roll of iodoform gauze, to which a strong thread is attached, is pushed up into the pelvic opening. To distinguish this thread from the numerous other ligatures, a small piece of gauze is tied to its free extremity. The cervix being now dragged backward and downward, a transverse incision is made across its anterior surface above the os, and the bladder is stripped off with finger and knife handle until the peritoneum is reached and opened. Here again quilted sutures are introduced to unite the peritoneum to the anterior vaginal wall.

By means of two aneurism-needles curved to the right and to the left, successive portions of the broad ligament on each side are tied and cut off from the womb; but the free extremities of the ligatures are, for the time being, left uncut. As the womb is thus gradually freed, it descends lower and lower,

until, all its attachments being severed, it is extirpated. Sometimes this can be greatly facilitated by either retroverting or by anteverting the womb, and delivering its fundus either through the posterior or the anterior vaginal incision. This manœuvre is brought about by the fingers in the anterior opening pushing the fundus backward, or *vice versa*. The fundus is then seized and drawn out by forceps, or it is hooked out by the old obstetric crotchet, which has served me in good stead. Two fingers in the rectum will also give very material help. By this forward or backward displacement, as the case may be, the broad ligaments get a half-twist upon themselves, which not only narrows their width, thus lessening the number of ligatures needed, but which also places their upper and most distant portions within easy operative reach. Whenever possible, the ovaries and tubes should also be ligated and removed, because those organs are the next ones most liable to be attacked in progressive cancer of the womb and may already contain cancer-germs, and because the woman should not be subjected to the annoyance of the now needless function of menstruation.

When the womb has been extirpated, the sponge tampon is removed, the free extremities\* of all the ligatures on the left broad ligament are seized with the left hand, and the stump on that side is drawn down below the level of the opening in the vaginal roof. To keep it in this position, it is sewed by one or two through gut-sutures to the corresponding extremity of the incision. The same thing is done to the right stump, and all the ligatures are cut off close to their knots. I ought to have said that before this the ligatures—say those on the tube and ovary—lying too high to be made extra-peritoneal, are first cut off close to their knots. A strip of iodoform gauze for drainage purposes is now pushed up into the pelvic cavity through a small opening left in the vaginal roof, and the vagina is loosely packed with iodoform gauze. On the third or fourth day the bowels are moved, and after that both strips of the iodoform gauze—the drainage strip and the vaginal tampon—are removed. No kind of vaginal douche should be used for at least a week, and then only with great gentleness, for fear of tearing open the newly united parts.

When the vulva and vagina are ample, and the womb is not much enlarged, this operation is an easy one. But when opposite conditions exist, such as will be found in aged women, and especially in old maids, the operation is a very difficult one. It may, indeed, have to be abandoned, or be completed only by a resort to abdominal section.

Within the last six weeks I have three times performed the operation, in each case using catgut sutures. In two of the cases the operation was quite

easy. In the third it proved tedious from senile narrowing of the soft parts, and from enlargement of the womb through cancer of its endometrium. In each the convalescence was so uninterrupted and so prompt as to be a surprise to me. The absence of all constitutional disturbance, the freedom from pain, and the ability of the patient to turn from side to side at will, were in striking contrast to the ordinary features of an abdominal section.

Some years ago, before the days of vaginal antiseptics, I removed by vaginal hysterectomy, using silk ligatures, two wombs affected with cancer. One woman died within four days, from the operation itself. The other perished within the year from a rapid return of the disease. Greatly dissatisfied with the immediate and remote results of this operation, I abandoned it. But very recently, indeed, after watching German operators and German statistics, I have become a zealous convert, and I now do not hesitate to assert that in vaginal hysterectomy we have a most potent weapon against a most deadly disease.

#### THE ETIOLOGY OF CHANCROID.<sup>1</sup>

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It is to-day clearly proved and very generally believed that the chancroidal ulcer does not depend upon a specific virus of its own, as was formerly claimed, and that, while a chancroid may be, and very commonly is, derived from a previous chancroid, a chancroidal bubo, or a chancroidal lymphangitis, it may also originate in pus derived from irritated lesions of syphilis and from irritated simple lesions in syphilitic subjects, and from various forms of simple pus, particularly when originating in active and intensely irritated lesions, and in some persons may develop *de novo*.

After the clear distinction between the chancre and the chancroid had been drawn by Bassereau in 1852, and Clerc in 1854, great efforts were made to establish the claim that two distinct viruses existed, namely, the syphilitic and the chancroidal. There was no difficulty in establishing beyond controversy the fact of the existence of the syphilitic virus, but it was otherwise concerning the *contagium vivum* of the chancroid. But ingenious reasoning, misrepresentations, and misapplications of facts surmounted the difficulties of the occasion, and by many it was considered as proved that such a morbid entity as the chancroidal virus actually existed. Thus was promulgated the doctrine of dualism, the simplicity of which was so striking that it gained quite general

<sup>1</sup> Read before the Section of Genito-urinary Surgery of the New York Academy of Medicine, November 12, 1891.

acceptance. But there were those that could not see anything mysterious and specific in the chancroid, and who, by means of experimental inoculations and clinical studies, threw doubt upon the existence of a specific virus for the chancroid. In this connection I may, I hope, without immodesty claim that the labors of Dr. Bumstead and myself had much to do with the inauguration of the era of light that prevails to-day. We felt that a dictum like the following, though emanating from so high an authority as Fournier, and adopted in this country by Van Buren and Keyes, should be proved to be false. It is as follows: "Chancroid is an affection perpetuated only by contagion; sexual intercourse is not essential. Wherever upon the human body a chancroid is found, there has been deposited pus from another chancroid under conditions favorable for its absorption. No amount of sexual excess, no degree of uncleanness, no irritation, traumatic or chemical, however prolonged; no simple or poisonous ulceration from other specific sources (syphilis, cancer, glanders, etc.)—nothing, in short, can produce chancroids except chancroids (chancroidal bubo included). So that, as Fournier puts it, if all the patients in the world with chancroid would avoid contact with others until their malady got well, the disease would cease from off the face of the earth." As I have said before, by means of intelligent investigation, experimental and clinical, it was proved beyond a doubt that ulcers having all the features and peculiarities of the chancroid could be produced by many different varieties of pus, the chief essential being the activity of the ulcerating process from which the pus was taken.<sup>1</sup> Thus then the chancroid was deprived of its dignity as an essentially virulent ulcer and relegated to the position of an indifferent affair of hybrid and heterogeneous origin. It was to be hoped that a flood of light would be thrown upon the question of the nature of the chancroid by modern bacteriological science and research, but these fond hopes have not been fully realized.

De Luca and Ducrey have each claimed that they have isolated and cultivated a microbe that is the morbid agent in the production of chancroid; but their results are discordant, and they failed to establish a clear scientific claim. If my reading is correct (and I have been careful and painstaking), the general sentiment among those who study bacteriology is that the chancroid is the production of pus that contains the staphylococcus pyogenes albus and aureus, and perhaps the streptococcus. In fact, the chancroid bears the same relation to the mucous membranes that ecthyma and impetigo bear to the skin. So that we may state the case in this

way: Chancroid is produced by pus rich in pyogenic microbes. In this thesis clinical observation and microscopy are in accord, the former proving that intensity of inflammation is necessary, and the latter that the pus is extremely rich in pyogenic microbes.

Though the profession at large is quite fully acquainted with the essential facts as to the nature of the chancroid, there are many points involved in its clinical history that are still not clear.

In very many cases chancroids are derived during sexual intercourse, one party being affected with this active form of ulceration. This form of transmission of the disease is well and generally known. It is transmission by direct descent. But it must be clearly understood that chancroids may be found on the penis of a man, and that examination of the woman with whom he cohabited may show her to be free from these lesions. In other words, it is not safe to say to a man suffering from chancroids that the woman with whom he cohabited undoubtedly had chancroids. This will be well shown by the following case:

A healthy young man, free from syphilis and gonorrhea, came to me with a rosary-like series of seven chancroids in the balano-preputial sulcus. He was surprised at the information that he had chancroids, and asserted that he was positive that the woman with whom he had cohabited had no such trouble, to which I readily assented, and I explained to him how chancroids might originate. Examination of the young woman on the following day showed that she was free from syphilis, and that her genitals were not the seat of disease, but that in the os uteri there was a deep fissure covered with a highly ulcerated surface, and surrounded by much hyperemia. From this lesion a profuse brownish, gelatinous pus escaped. The woman gave the following story: Seven years before, she had had a child, and had since thought that she was not quite right in the womb, having had exacerbations and remissions of leucorrhea. Four weeks before, she was obliged to go to bed in consequence of what was called peritonitis. Three weeks later, after getting out of the sick-bed, her lover (who had been such, and her only one for years) and she resumed their amorous embraces in a very vigorous manner, supplemented with unlimited wine, the result of which was the chancroids in himself and much pelvic pain in his consort.

In this case a discharge that had previously come from a subacute form of inflammation was, in consequence of the peritonitis and excess, transformed into a more active form of pus. Every source of error in this case was carefully eliminated.

This and many similar cases have clearly convinced me that many cases of chancroid are developed through non-syphilitic women in whom, owing to various causes, an exacerbation has taken place in

<sup>1</sup> For details see Bumstead and Taylor on Venereal Diseases, Introductory Chapter. Philadelphia, 1883.

some lesion of the genitals that previously was innocuous, and which then gave forth an active form of pus.<sup>1</sup> It follows, therefore, that we should be guarded in the cases of suspected wives and mistresses as to what we say to husbands or lovers that are unlucky enough to become affected with ulcers of the genitals in intercourse with the former. Otherwise much harm may be done, and innocent women may be cruelly wronged.

It is far from uncommon to observe chancroids in a man contracted in intercourse with a syphilitic woman who has no specific lesion of the genitals, but who suffers from a purulent vaginal secretion. In these cases the simple inflammation of the syphilitic woman gives issue to pus rich in pyogenic microbes. This again is an illustration of the statement that men may gain chancroids from women whose genitals are free from these lesions. I have many times, by means of confrontations, conclusively convinced myself of this mode of origin of chancroids, which was first brought into prominence by Morgan, of Dublin, in 1871.

Then, again, I have seen many instances in which men have cohabited with impunity with women the victims of an old and extinct syphilis, but who suffered from chronic chancroids. In these cases the ulcers had become old and inactive, and they had ceased to secrete a dangerous pus.

Now, then, I come to a portion of this subject concerning which there is a widespread want of knowledge in the minds of medical men.

Chancroid being classed as a venereal disease, the physician instinctively thinks that a given ulcer that is presented to him must of necessity have originated in sexual contact. In many cases this supposition is not correct, for chancroids may originate in some subjects *de novo*. In other words, it is not very uncommon to see chancroids in men who have had no sexual exposure whatever, such lesions being perhaps due to some inherent peculiarities of their tissues, to some diathetic condition or to debility, or to some contamination with particles of dirt that have lodged upon their genital organ. This mode of origin of the chancroid is well shown in the following two cases in which herpetic lesions became transformed into actively destructive chancroids. Such cases are far from rare, and if the practitioner will carefully interrogate the patients that come to him suffering from chancroids he will in many instances find that there has been no exposure within the time required for the development of these lesions, and he will convince himself beyond all

doubt that the ulcerative lesions are due to some unknown source of contamination of herpetic vesicles, of chafes, abrasions, or fissures. I have among my notes many cases illustrating the origin of chancroid in all of these lesions and traumatisms. The chancroid in these cases is simply an evidence of wound-infection, and is really a septic ulcer.

Many years ago, when the doctrine prevailed that a man or woman having upon his or her genitals or elsewhere a chancroid must of necessity have contracted that ulcer from some other person afflicted with chancroid, a gentleman, aged twenty-nine, came to me whose case and history much puzzled me. He had had gonorrhea several times, but had never been infected with syphilis. He was fat and plethoric and claimed that he had never been sick for a day in his life (suffering from clap excepted). He showed on the inner side of the prepuce a lesion one-third of an inch in diameter, that without hesitation I pronounced to be a chancroid. The soft, yellowish, worm-eaten surface and base, the undermined edges, the peculiar secretion, and the halo of inflammatory redness produced a picture so characteristic and typical that my assertion was emphatic. But the gentleman insisted that he had not had any intercourse for a month and that he had been informed that chancroids appeared within a very few days after coitus. My reply was that he had a chancroid and that in some unexplained manner he had been contaminated with chancroidal pus. He claimed that this was impossible, and said that under similar circumstances he had had precisely similar ulcers, which, by a number of eminent surgeons and syphilographers in some of the largest cities of America and Europe had in each instance been unqualifiedly pronounced to be chancroids. For a number of years this man came to me with these ulcers. In some instances they appeared so soon after coitus that chancroidal infection seemed probable as a cause, while in others no sexual intercourse had been indulged in for several weeks prior to their appearance. Repeated careful questioning convinced me that this gentleman was the victim of persistently recurring herpes progenitalis, and for a long time it was a mystery to me why in some instances the vesicles dried and their surfaces healed promptly, and in others they became transformed into unhealthy ulcers that could not be distinguished from classical chancroids.

Whether in this case there was a tissue-peculiarity I am unable to say. The patient was seemingly in robust health; yet it seemed to be his lot to suffer (as I know now) from the ravages of pyogenic microbes that, in some unexplained manner, so persistently attacked his excoriated vesicles.

The following case is even more remarkable:

A gentleman, thirty years old, thin and rather pale, but who had never had any serious sickness, has suffered from herpes progenitalis three or four times a year for about ten years. He had severe attacks of gonorrhea when twenty-four and twenty-

<sup>1</sup> This clinical fact (and I can cite numerous similar cases) is in direct accord with and confirmatory of the results of experimental inoculations, made by a goodly number of observers, who produced lesions in no way distinguishable from chancroids, by the use of the pus of acne, ecthyma, impetigo, lupus, scabies, and pemphigus.

six years old. He has never had syphilis. He came under my observation in 1886, having a deep sloughing ulcer in the left groin and a similar ulcer on the thigh, just below the groin. These lesions were the sequelæ of two virulent buboes. They were thoroughly healed by curetting, followed by copious irrigation with a five per cent. carbolic solution. Then the parts having been dried, the morbid surface was dusted with iodoform, covered with gauze, and bandaged. On the anterior surface of the corresponding thigh were three little ulcers, in all respects like chancroids, and several hair-follicles were the seat of a deep hyperemia. According to the patient's statement, the lesions upon the thigh were caused by the matter that had escaped from the buboes, he in travelling being unable to dress his ulcers or keep himself clean. The lesions upon the thigh were well cleansed, dusted with iodoform, covered with gauze and bandaged. Briefly stated, it may be said that healing was brought about in all these lesions in three weeks.

As the case is thus far reported it would pass for a well-marked illustration of virulent buboes, complicated by the chancroidal ulcers of the thigh, which were produced by accidental auto-inoculation.

Let us now consider the history of the case. The patient was a very intelligent man, who, by reading and from conversations with medical men, had gained a good general idea of chancre and its consequences, and of chancroid and its sequelæ. His account of his case was as follows:

He had, as stated, for a number of years been much troubled with herpes progenitalis, which appeared before he had suffered from gonorrhea. Each attack came on with smarting, burning pain. In some instances the vesicles were seated on the skin of the penis, in others on the inner surface of the prepuce, and in others again near the frenum and the meatus urinarius. In the early attacks, the vesicles, under simple treatment, healed in about a week. As years went on, he observed that sometimes the vesicles assumed an unhealthy appearance, became much ulcerated, and were very rebellious to careful treatment. On several occasions he was forced to lay up and apply cooling lotions to enlarged and painful ganglia in the groins. Being a thoughtful man in all matters, and observant as to the results of coitus, he convinced himself that his attacks of herpes were never the result of that act. Sometimes the herpes appeared a few days after coitus, and then again it came on in regular form after many weeks' abstinence. This showed him (and his deduction was correct) that in none of his sexual contacts had he been the victim of infection. The facts concerning what took place prior to the development of the virulent buboes first spoken of are as follows: The patient had not had sexual intercourse for three months, and was suddenly attacked with a crop of herpetic vesicles, seated in the left fossa of the frenum. Being a very careful man as to the cleanly condition of his genitals, he

had always been scrupulously so when he was troubled with herpes. This group of vesicles rapidly developed into a large ulcer, which a surgeon pronounced to be a chancroid, which he maintained could only have been contracted in coitus. He refused utterly to listen to the asseveration of the patient that he had not been exposed in three months. Two weeks' careful treatment, largely with iodoform, healed the ulcer, but before that consummation was reached the virulent process in the groin and thigh began, which eventuated in the buboes and the chancroids I have spoken of.

Here then was a case in which an undoubted history of herpes preputialis was given, in which infection in sexual intercourse was entirely out of the question, but in which the vesicles, from some unknown cause, became transformed into an ulcer, typically chancroidal in appearance. By means of lymphatic infection, this ulcer (for the patient had had no lesion whatever about the foot, leg, or buttocks) gave rise to two virulent buboes, the pus of which, coming in contact with the thigh, produced typical chancroidal ulcers.

During the following years, recurring attacks of herpes were experienced, in some of which the vesicles became converted into destructive ulcers. On two occasions I saw these vesicles in their unruptured condition, once on the internal layer of the prepuce and once upon the integument of the penis. In each instance I instituted a most rigid antiseptic condition, and kept the ulcers covered with iodoform without intermission, with the result of causing the vesicles to wither, and the excoriations to heal promptly, and without the least untoward complication.

In 1890, however, this gentleman came to me again under the following circumstances: Three weeks previously, not having had coitus in four months, he had again been attacked with preputial herpes near the right of the frenum. Being deeply engrossed in business, he contented himself with washing the parts and applying a mild lotion on cotton. The vesicles developed into a typically chancroidal ulcer, and the ganglia in the right groin became swollen and painful. The ulcer was treated with iodoform, and cold was applied to the groin. The chancroid healed, but the ganglia went on to suppuration. After free incision a deep ulcerated surface was left, which was as typically characteristic of a virulent bubo as any that I have ever seen. In its cure it presented the same difficulty observed in the treatment of most virulent buboes. This patient has since suffered with two attacks of herpes, but by the observance of the most rigorous antiseptics from the time of their first appearance I have been able to prevent the development of destructive ulcers.

In one particular this case is difficult of explanation. It may be that this gentleman's tissues afforded an especially good culture-ground for pyogenic microbes, for his lesions were certainly very active

and destructive, considering that he did not suffer from syphilis.

Finally, it is very important to understand the relation of an active syphilitic infection to excoriations, chafes, abrasions, and fissures about the genitals, male and female. In the first and second years of syphilis more especially, and in some instances at later periods, we find that in many cases the simple lesions just enumerated become transformed into ulcers having every feature and characteristic peculiar to chancroids. Cases presenting these features are frequently very puzzling, and it is important that their nature should be clearly understood.

Perhaps I can make the matter more clearly understood by the citation of a case that is now under treatment:

A gentleman, aged twenty-eight, has been syphilitic less than a year, and though commenced rather late, specific treatment is doing well for him. He presents four typical chancroids on the inner aspect of the prepuce. They appeared twelve days after intercourse with a woman who, under examination, was found to have a simple leucorrhea. The gentleman had for years, at irregular intervals, suffered from herpes progenitalis, and he was much impressed with the fact that in two such attacks that have occurred since his infection with syphilis the excoriations had developed into unhealthy-looking and destructive ulcers, which were difficult to cure.

In this case we find a condition very frequently observed in syphilitics. Simple inflammatory lesions of the genitals become converted into typical chancroids, or, as we may say, wound-infections, or septic ulcers, undoubtedly as the result of contamination with pyogenic microbes, the source of which is a mystery. Lesions thus produced often display great virulence, in consequence of the activity of the local infective process (staphylococcus and streptococcus infection), which seems to reach its acme in syphilitic tissues, particularly when the infection is not very old. Pus taken from these chancroids in syphilitic subjects will as a rule be seen to possess great potentiality in the extent and persistence of the ulcers and in the power that it possesses of producing by inoculation similar lesions for many generations.

In some of these cases of chancroid that develop *de novo* in syphilitic subjects, contamination of the inguinal ganglia takes place by direct lymphatic absorption. As a result we have two forms of bubo—the inflammatory, which may be aborted, and the virulent, which leads to abscess. It is very probable that in the tissues of syphilitic subjects the pyogenic microbes find a most favorable nidus. The inflammatory process to which they give rise is often very active, and the resulting pus, rich in microbes and their poisons or tissue-products, is very virulent

and destructive. Observation during a long period of years has convinced me that chancroids derived from syphilitic pus (the diathesis being quite active) are commonly more destructive than their congeners that are caused by the various forms of simple pus.

It is well to emphasize the fact that in old syphilitics, male and female, in whom the diathesis has seemingly run itself out, lesions of continuity about the genitals are liable to assume the features and characteristics of chancroids. A recollection of this fact will often render an obscure case clear.

It now only remains to speak briefly of the influence of syphilis in producing chancroids in women. The tissues of the genitals of syphilitic women, like those of men similarly afflicted, are liable to the development of chancroidal ulcers *de novo* upon all forms of lesion of continuity, such as herpetic vesicles, abrasions, chafes, etc. In proportion as the disease is active and the general nutrition is lowered, these ulcers will be found to be more active and destructive—in short, more typically chancroidal. I will briefly report two recent private cases as illustrations of this statement:

A young woman of flabby build, syphilitic a year, in consequence of vulvar pruritus following menstruation scratched the surface of the right protruding nympha until it was raw. She had absolutely refrained from coitus for a month, and had not been near any one suffering from chancroids. Ten days after this paroxysm of scratching I saw her with a large typical chancroid upon the wounded nympha, and a bubo that, when opened a week later, presented every characteristic of virulence.

The next case is very similar. A young woman, fifteen months syphilitic, treated irregularly, noticed a group of herpetic vesicles to the right of the root of the clitoris. She had had similar lesions in years gone by. She had not indulged in sexual intercourse for several months. Though she applied a mild carbolic solution of her own preparation upon cotton, this group of vesicles promptly became transformed into a typical chancroid as large as a ten-cent piece. Very shortly pain in the right groin pointed to ganglionic contamination, and later on I opened as typical a virulent bubo as I have ever seen.

In the light of what has already been said as to the development of chancroids in syphilitic subjects, I need make no further comment on these cases, for they are simply other illustrations of wound-infection. They speak for themselves, and I can vouch for the correctness of the facts. Any physician who sees many cases of venereal disease will certainly call to mind similar ones, some of which may have been obscure to him.

In old prostitutes, the subjects of ancient and perhaps extinct syphilis, we find chronic chancroids that linger in an indolent and aphlegmasiac condi-

tion for years and years, frequently giving their bearers very little concern, but presenting great rebelliousness to treatment. They are relics of active ulceration, and it is probable that the microbes which have caused them have become weak and attenuated, and hence are powerless for active invasion.

In this clinical summary I have endeavored to present a general outline of the mode and peculiarities of development of chancroids appearing after sexual contact, and, as we say, *de novo*, without sexual contact, or by accidental pus-contamination. The subject has occupied my mind for many years, and I believe that it is here presented in an accurate manner. I think that I have adduced evidence that proves beyond controversy that the assertions that a chancroid is always of necessity the result of chancroidal pus, and that if all the patients in the world suffering with chancroid would avoid contact with others until their malady got well, the disease would cease from off the face of the earth, are utterly false, and not at all in keeping with the present condition of our knowledge.

To sum up: What we call chancroid is the product of many varieties of pus derived from non-syphilitic and syphilitic subjects. It is therefore a hybrid, heterogeneous lesion, in all cases a septic ulcer, and in many instances simply an active form of wound-infection. This septic ulcer in some cases originates *de novo* from the contact of pyogenic microbes with a raw surface, herpetic or eczematous excoriation, a chafe, etc., sexual contact then having nothing to do with its development. As a general rule, this local infective process is more active in syphilitic than in non-syphilitic subjects. It follows, therefore, that so long as pyogenic microbes and tissue-predisposition exist, chancroids will be found upon the mucous membranes and integument of the human race.

40 WEST TWENTY-FIRST STREET.

#### GONORRHEAL RHEUMATISM: ITS EFFECTS AND TREATMENT.

BY BERNARD E. BRODHURST, F.R.C.S.,  
MANCHESTER, ENGLAND.

It is certain that gonorrheal, or urethral, rheumatism is in the first instance invariably preceded by a specific discharge. Subsequent attacks may or may not be preceded by a discharge; but the first attack is always preceded by a specific urethral discharge. A second attack of articular rheumatism may be caused by the use of the bougie, or by an act of coition, or by any other form of irritation of the urethral canal.

Exposure to wet and cold weather, the gonorrheal discharge being present or about to appear, tends to induce this form of articular inflammation. Con-

siderable effusion into the affected joints takes place, accompanied with great pain; but, although tension may be very great, suppuration never occurs. Many joints usually become inflamed simultaneously; and all may recover perfectly and without leaving behind any ill results. Every fresh attack of inflammation takes more effect than the preceding one, and seems to be more virulent in its character; and it is probable that although on two occasions the joints perhaps resume their normal appearance and their functions, a third attack may leave the patient lamed. It is common that all joints recover well except one, but that one remains stiff and immovable.

When pain is first felt, and swelling appears, the affected joints should be wrapped in lint covered with mercurial ointment, and they should be bandaged as firmly as can easily be borne, and the patient should be brought rapidly under the influence of mercury, preferably by inunction, with which treatment pain and swelling quickly disappear, and the joints resume their normal condition. At this stage passive motion should be instituted to ascertain that the motion of any affected joint is free, for lymph will have been deposited on the synovial membranes, through which adhesions form that prevent motion. These bands soon become firm, and resist any attempt that a patient himself can make to move the joint. These constitute false ankylosis. The mercurial treatment to which I have referred, if resorted to at the onset of the inflammatory stage, never fails. Swelling subsides as the mercury takes effect.

The large joints, namely, the knee, the hip, the elbow, and the shoulder-joints, are those that are most frequently affected. Every joint, indeed, may become inflamed, and ankylosis may result, not in one joint only, but in every articulation of the body. Such a case I have had under my own care. I saw this patient with Dr. Lever. He had had three attacks of gonorrheal rheumatism, each of which was preceded by a specific urethral discharge. He recovered the use of his limbs after each attack, but each occasion required longer time for recovery than the preceding one, and the third attack left a certain degree of stiffness that was never entirely removed. This, however, appeared to be muscular rather than articular, and it was only felt after a long rest in one position. At length he married. After marriage he was seized with violent inflammation. Every articulation was inflamed, and became ankylosed. At this time I saw him, and he could neither move his head nor any limb, nor could he masticate. He lay like a log, without power of motion.

When adhesions remain and become firm, after inflammation has ceased and passive motion has

not been employed, force is needed to restore mobility. If this force is employed in extending the limb, dislocation may be produced, or at least some displacement of the articular surfaces may occur. Force should therefore always be used in the direction of flexion. When force is thus employed no injury can accrue to any structure, and, if this operation has been long delayed, so that contraction of the flexor muscles cannot otherwise be overcome, their tendons should be divided. But, before force is applied to rupture adhesions, the punctured wounds should be allowed to heal, for otherwise they may readily be extended into lacerated wounds from three to four inches in length. In this manner mobility is very quickly regained. The operation is entirely successful, and it ranks among the most satisfactory in the whole range of surgery. I operated in this way, with Mr. Henry Lee, on an elbow. Disease had been contracted in China, and several joints became inflamed. All, however, recovered except the elbow. This joint became perfectly stiff and immovable. Under chloroform the adhesions yielded instantly and completely, and mobility was restored. In the course of one month he returned to China, having recovered the entire use of the joint. Three years later I met him accidentally, and inquiring as to his elbow, he answered: "Really, I have forgotten which was the stiff elbow; both are alike"—at the same time rapidly flexing and extending the forearms.

With Dr. William Wood I saw another case in which disease had been contracted in Ceylon. In this instance the patient slept in the open air, and awakened cold and in great pain. With difficulty he was carried to his own room, the hip, knee, ankle, and shoulder joints being much swollen and dreadfully tender. The hip became so much swollen that it was supposed that suppuration would occur. This joint became stiff and immovable, but all the others recovered perfectly. Sir Benjamin Brodie advised that he should arrange to leave the army, because he would not be able to follow his profession, as he could neither ride nor walk, and "he would take his stiff joint with him to the grave." From Sir Benjamin's house he came to me, and I told him that mobility could be restored. The adhesions yielded with very slight force, and gave way gradually, so that the thigh, which had been fully extended, was flexed upon the pelvis. He suffered no pain, and slept well without an opiate. Passive motion was used, and in some few days he walked about his room, and within a fortnight he walked upward of two miles without injury. In two months I presented him at the Royal Medical and Chirurgical Society, where he was examined by many, and especially by Mr. Coulson, who affirmed that, unless he had heard it from so many credible

witnesses, he could not have believed that the hip-joint had ever been diseased, because the head of the femur moved perfectly in every direction. Speaking immediately after the paper was read, in which this case was detailed, and before he had examined the patient or knew that he was present, or that he was an officer in the Queen's service, Mr. Coulson affirmed that the case was impossible, to the great astonishment and amazement of my patient, who was sitting at my side. Immediately afterward the patient rejoined his regiment. Writing to me some few months later, he said: "I walk occasionally twelve or thirteen miles a day;" and again, later, he wrote: "I can sit in the saddle all day without pain."

I have also operated, with Sir Prescott Hewett, on the hip, disease having been contracted in Russia, and on another case from India; with Sir William Ferguson I also operated on both hips and both knees in a case from Bermuda—as well as in many other cases, in which mobility has been perfectly restored.

Ten years ago I had operated on upward of 1000 cases of fibrous ankylosis, and in no instance, either before that time or since, have I met with any accident, whether displacement, fracture, inflammation, or injury of any kind whatsoever.

#### TWO NEW CASES OF FILARIA SANGUINIS HOMINIS.

By R. M. SLAUGHTER, M.D.,  
OF THEOLOGICAL SEMINARY, VIRGINIA.

IN August of the present year I made the, to me, interesting discovery that indigenous cases of filaria sanguinis hominis are to be found in Virginia. During that month, in two instances, while making microscopic examinations, I found in urine unmistakable specimens of the embryo filaria sanguinis hominis, and I give below the clinical histories of the cases from which the specimens were obtained.

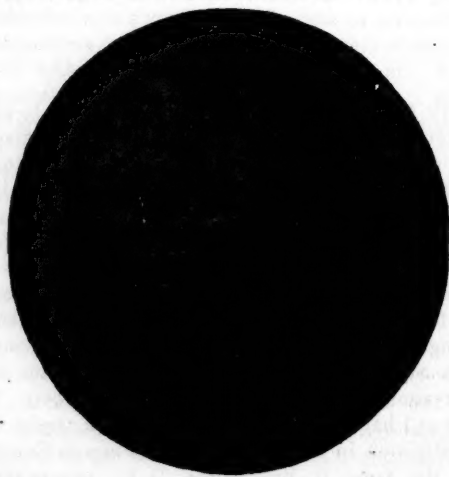
It is well known that indigenous cases of filaria sanguinis hominis are to be met with in our Southern States. This has been established by the observations of Guit  ras, De Saussure, and others. So far as I have been able to ascertain in a careful investigation in the Library of the Surgeon-General of the Army, in Washington, D. C., twenty-three cases have been reported up to July, 1891. Reports of some other cases are to be found, it is true, but they are not indigenous, for the patients were natives of warmer latitudes.

Of the twenty-three cases mentioned, Dr. de Saussure, of Charleston, S. C., has reported twenty-two. (See THE MEDICAL NEWS, June 28, 1890.) The remaining case is that reported by Dr. W. M. Mastin, of Mobile, Ala., and reported in

a paper read at the meeting of the American Association of Genito-urinary Surgeons at Washington in September, 1888 (*Annals of Surgery*, vol. viii, No. 5, November, 1888). My discovery of these two cases in Northern Virginia extends, then, the area in which indigenous cases have been encountered to nearly as far north as the thirty-ninth parallel of latitude, which is about that of Washington, D. C.

The following is the history of these cases:

CASE I.—Miss —, a maiden lady, about sixty-five years of age, was born in Richmond, Va., and has resided in various portions of the State, but for the last twenty-five years at Theological Seminary, which is six miles southwest of Washington, D. C. She has enjoyed remarkably good health all her life. About the first of August last, she returned home from a visit to Richmond, looking and feeling very badly. She appeared anemic and complained of feeling weak and always tired; had diarrhea, and irregular, slight chills and fever at night. The treatment instituted entirely failed to relieve her, and, as I feared renal trouble, I asked for a specimen of her urine for examination. I was then told by the family that it had been noticed for some years that at times her urine "did not look right." The sample was bloody and chylous. The case was one of chylo-hematuria, which a microscopic examination showed to be of filarial origin, many embryo filaria being found in the sediment. There was no evidence of renal disease. The annexed illustration shows the appearance of the filaria.



For the next few weeks the patient displayed a tendency to the formation of furuncles about the face; a small alveolar abscess formed above the upper incisors, which I opened; on examining the pus I found several embryo filaria therein. It may be worthy of mention that some twenty or more years ago she suddenly became quite deaf and remained so for several months, when an abscess formed in the mouth. When this was opened the deafness disappeared. Careful inquiry into her past

history has elicited no other facts having any bearing on the case. Under treatment, consisting of tonics and astringents, the diarrhea has ceased and her general condition has greatly improved.

CASE II.—Mrs. —, white, about forty-five years of age, was born in Fredericksburg, Va., and for the last twenty years has lived in Alexandria, Va. She is a patient of Dr. W. R. Purvis, of Alexandria, and has recently been under treatment for hysterical paralysis. She conceived an idea that she had Bright's disease, and a specimen of her urine was handed me by Dr. Purvis for microscopic examination. This specimen I found to be chylous and to contain numerous embryo filaria. I have since examined a second specimen, which was also chylous and contained filaria. In this case the chyluria is the only manifestation of the presence of filaria that has been observed, unless the hysterical condition be so regarded, and for this there would seem to be no sufficient reason.

In neither of these cases have I yet been able to examine the blood.

The most common manifestation of the presence of filaria in the human subject, in indigenous cases especially, is chyluria. In many cases it is the only symptom; in some it is associated with others, such, for example, as hematuria, lymphangitis, enlarged glands, abscesses, dysentery, diarrhea, or lumbar pains, etc. In some cases chyluria has not been observed, the leading manifestation being hematuria, chylocele, or scrotal elephantiasis, or lymph-scrotum.

In those countries in which the disease is quite common, a formidable array of pathological conditions has been found associated with filaria. According to Bancroft, Fayrer, Sonsino, Manson, and others, the following are to be found so associated: Chyluria, hematuria, anemia, tuberculosis, chylocele, varicocele, elastic tumors in axilla and groin, lymph-vesicles bursting on scrotum and abdomen, skin diseases (craw-craw), acute orchitis, lymphangitis with fever, erysipelatos lymphangitis leading to hypertrophy of the skin, elephantiasis of the scrotum, and abscess of the scrotum, of the glands of the neck, of the lymphatics of the arm and thigh, intrapelvic abscesses, peculiar steatoma of the face, venous varix, cerebral abscess and other lesions of the brain, cachexia, deterioration of the general health, deafness, eye diseases, etc.

The subject, I would say in conclusion, seems to me to offer an interesting and possibly extensive field for future investigation.

Stoerk, of Vienna, has succeeded to the Laryngological clinic of Schrötter, who has been given a professorship of Clinical Medicine and a medical clinic.

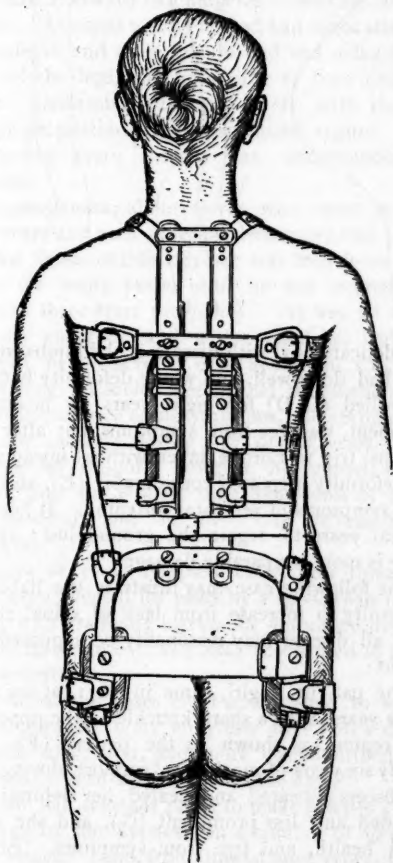
Prof. Carl Fraenkel, of Königsberg, has been elected to the chair of Hygiene at Marburg, in succession to Rubner, called to Berlin.

**THE VALUE OF MECHANICAL TREATMENT IN OLD AND NEGLECTED CASES OF POTT'S DISEASE.<sup>1</sup>**

BY HENRY LING TAYLOR, M.D.,  
OF NEW YORK.

ONE of the most active and eminent operative surgeons of New York said to the writer, not long ago, that he got but little bone-surgery to do, because orthopedic work was so successful. Not the least important service that the pioneers in orthopedy have rendered to the profession and to the public is the diffusion of the knowledge of the

FIG. 1.



relative curability of most crippling affections; and, as a matter of fact, the adult cripple in our large cities is now much less conspicuous than formerly. There is a class of sufferers, however, still unfortunately numerous, and for whom professional advice is often sought, namely, the class of kyphotics, in whom the inflammatory process has dragged out

<sup>1</sup> Read before the American Orthopedic Association, Washington, September 23, 1891.

its tedious course through years of suffering and increasing deformity, and who, on account of inadequate treatment or too little persistence, have found no relief. The results of neglected and unsuccessfully-treated Pott's disease are so serious, and in many respects so irremediable, that it seems desirable to ascertain under what circumstances and how far their unfortunate condition can be mitigated.

The orthopedist sees cases of spinal caries in all stages, from a time preceding the appearance of spinal deformity to the aggravated hunchback, with or without severe constitutional symptoms, and in whatever stage presented, modern mechanical

FIG. 2.

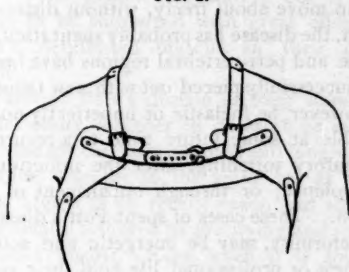
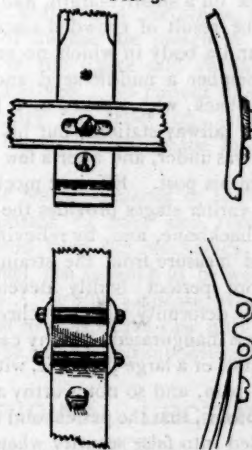


FIG. 3.



treatment seeks by appropriate methods to procure rest and protection from violence for the inflamed spine, and to arrest, and in exceptional cases to rectify, accrued deformity.<sup>1</sup> The means employed by the writer to secure these results depend upon the principle of antero-posterior leverage, so applied to the spine by means of a specially-adapted apparatus<sup>2</sup>

<sup>1</sup> See "The Cure of Pott's Disease with Recession of the Deformity," Medical Record, January 8, 1887.

<sup>2</sup> "Description of Improved Spinal Apparatus," Transactions American Orthopedic Association, vol. 1, page 15, and Medical Record, November 19, 1887. See also "The Mechanical Treatment of Angular Curvature, or Pott's Disease of the Spine," by C. Fayette Taylor, M.D., Transactions N. Y. State Medical Society, 1863, etc.

as to relieve the carious bodies of the vertebrae of harmful pressure. This may be supplemented by short periods of recumbency, daily rests, and other hygienic remedies. It goes without saying that, the earlier in the disease the case is treated, the better the average result; but what measure of relief does such treatment offer to long-standing and greatly deformed cases?

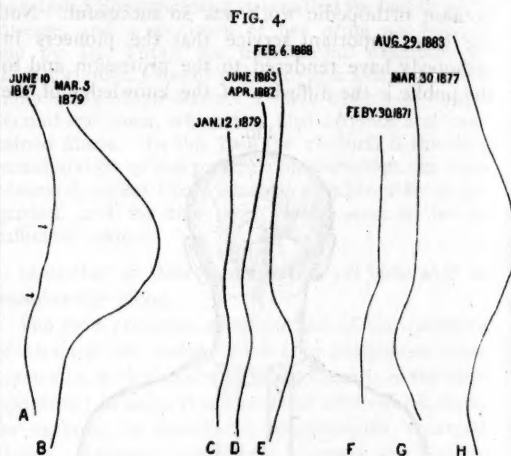
We must distinguish between treatment of the deformity and treatment of the disease.

If the case in question has no longer any constitutional symptoms, no symmetrical, lateral, or ventral pains, no reflex rigidity of the spinal muscles, and no sharp knuckle, but an evenly rounded boss; and if he can move about freely, without distress or exhaustion, the disease has probably spent itself, and the vertebrae and peri-vertebral regions have been more or less successfully pieced out with new tissue, which may, however, be inelastic or imperfectly nourished, and liable at some future time to a recurrence of inflammatory softening, after the infliction of unusual violence, or through impairment of general nutrition. These cases of spent Pott's disease, with large deformity, may be energetic and active, and in business or professional life hold their own well, but they work on a small margin, and at a disadvantage, as the result of crowded viscera, impeded respiration, and a body in which no organ has free play. I remember a middle-aged and cruelly deformed hunchback, who worked as a heavy porter at one of our railway stations, but his face showed the strain he was under, and after a few years he disappeared from his post. Efficient mechanical treatment in the earlier stages provides the sufferer with a substitute backbone, and, by relieving the organism in a great measure from the strain it is under, favors a more perfect bodily development and growth, while deformity is being checked and the healing process inaugurated. Many cases, however, run their course, or a large part of it, without pain, or with so little pain, and so noteworthy an absence of striking symptoms, that the patient and his guardians are often lulled into false security when help is most needed; and at certain stages the surgeon himself may be at a loss to decide positively as to the presence or absence of disease.

I show the tracing from the back of a boy who came in 1867, at nine years of age, with beginning spondylitis (Fig. 4, A), but who declined treatment, and reported twelve years later with a severe hunchback (B), and a freely discharging sinus. He was led by the mildness of his symptoms to indulge in athletic exercises, such as riding and fencing, to within four years of his second visit.

A boy of fourteen, from Chile, S. A., with a large kyphosis of the mid-dorsal region, who consulted me a year ago, came wearing a plaster-jacket. His

disease began at four; at eight he was apparently well; but, after violent exercise, symptoms recurred, followed by a paraplegia lasting six months. This patient was kept recumbent for five years, and had recovered perfectly from his paralysis. In spite of his deformity and his desire for support, as evidenced by the jacket, he had lately been in the habit of playing cricket.



A delicate boy, with disease of the lumbar region, who had done well, and whose deformity had been controlled (C D) for eight years by mechanical treatment, was free from symptoms, but after a six months' trip to Europe, taken without my approval, his deformity increased considerably (E), and there were symptoms of vertebral softening. It has taken several years to regain the ground lost; indeed, there is more irreparable damage.

The following case may illustrate the liability of deformity to increase from lack of spinal rigidity after all disease may reasonably be supposed to be absent:

The patient, a girl, came in 1871, at the age of three years, with a sharp knuckle in the upper lumbar region, as shown in the pattern (F). After nearly six years of mechanical support, during which an abscess appeared and healed, her deformity was rounded and less prominent (G), and she was in good health, and free from symptoms. She was considered free from disease, but continuance of support was advised, lest there should be further increase of deformity from slow yielding of recently healed tissues. This advice was declined, and the apparatus discarded. Six years later, when thirteen, she reported with a large increase of rounded projection (H), but in good health, and with no recurrence of symptoms.

Cases that have been allowed to run along without adequate treatment often fail to heal completely,

and are especially liable to exacerbations and relapses.

A gentleman of fifty, who was attacked with disease in the dorsal region at nine, came to me last year still wearing a corset. At thirty-nine he was completely paraplegic for four months, but recovered, and presented at his visit to me no positive evidence of disease. He had never had an abscess, but his deformity was of the extremest grade, and he appeared to be about four feet three inches tall.

A gentleman of forty was seen in 1883. His disease was in the dorsal region, and began at the age of five. He had been kept recumbent for two years, and had afterward had imperfect mechanical treatment. At about twenty he had had three attacks of paraplegia, and since then he had had reflex twitching of the legs, and from time to time attacks of pain. Deformity was very severe, with the apex of the projection in the lower dorsal region. After thirty-five years, disease was undoubtedly still present.

A gentleman, about thirty, who came to me a few years ago with extreme deformity, had had his disease from childhood, but was free from symptoms for many years, until he was injured in a cyclone three years previously. He was an exceptionally energetic and active man, but had been obliged, by the severity of his symptoms, to give up everything. Careful mechanical treatment caused the disappearance of all symptoms, and his deformity did not increase during five or six years. After leaving off support, however, he injured himself again, and in a short time symptoms of softening recurred, and the deformity increased considerably.

Many of these relapsed cases, and those that have been affected for years by a spondylitis of low grade with gradually increasing deformity, respond kindly to treatment, and may be restored to health and activity.

Some of the cases cited would seem to suggest that a complete bony ankylosis after Pott's disease is much later, rarer, and more circumscribed than has usually been assumed to be the case.<sup>1</sup>

If one will take the pains to make a series of lead tracings of the kyphosis in a number of so called "ankylosed" cases, from time to time, repeating the observations on the same cases under different conditions, this statement will not seem too strong. This is also well shown in patterns taken before and after suspension in these badly deformed cases. Changes in the contour are observed that can hardly be wholly explained by compensation in the unaffected portions of the spine. Such cases can often add an inch or two to their height by a voluntary attempt

to straighten. In many of the early cases, cured with little or no deformity, motion in the diseased areas can also be demonstrated. This explains the necessity of prolonged treatment after subsidence of symptoms, and the slow yielding of the newly healed spine, which often occurs even without recurrence of rational symptoms, when support is inefficient or too soon discontinued; also, the liability to relapse from accident or other causes after long periods of immunity. It explains, too, the benefit to be obtained in certain cases from mechanically relieving the patient of the effort of self-support, even when there is little or no sign of disease. The patient's column is out of balance, and has to be supported with great effort by the patient's debilitated muscles in their disturbed relations.

In cases of Pott's disease of long standing and great deformity, whether in children or adults, the indications for carefully adapted and long-continued mechanical support to the spine are as clear and often as urgent as in recent cases, and such treatment is usually followed by gratifying and sometimes by brilliant results. Even when it is too late to improve the deformity the patient may often be restored to health and usefulness, and when no symptoms of disease are present a moderate improvement in the figure and carriage may occasionally be attained. No patient should be denied an opportunity for relief on account of age, severity of the symptoms, or the long duration of his disease.

Mr. Noble Smith, speaking of the lateral curvature, is reported to have said recently:<sup>1</sup> "The surgeon should keep the mechanical treatment in his own hands, just as much as he would that of a broken limb." In Pott's disease, at least, he should also continue to control the case until the patient is sound and the spine is self-supporting.

## ORIGINAL LECTURE.

### ARTHRITIS FOLLOWING TYPHOID FEVER.

*Abstract of a Clinical Lecture  
Delivered at the Woman's Hospital, Philadelphia.*

By FREDERICK P. HENRY, A.M., M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE IN THE  
WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA.

You saw this patient two weeks ago, when I introduced her as a typhoid convalescent and made some remarks upon the proper treatment of the convalescent stage of enteric fever.

Her recovery, which until quite recently was steadily progressive, has been interrupted by an affection of the left elbow-joint. You observe that the forearm is flexed at an obtuse angle, and that when I attempt to extend

<sup>1</sup> Vide "Cure of Pott's Disease, with Recession," etc.

<sup>1</sup> Last meeting of the British Medical Association.

it or flex it still further, I almost immediately meet with a resistance that is evidently articular.

There is some swelling of the joint, most marked between the internal condyle of the humerus and the olecranon process, but no great degree of tenderness, and no redness whatever.

This condition, having made its appearance after the complete subsidence of the fever, is probably to be ranked among the sequela of typhoid. Had it occurred during the course of the fever, it might have been regarded either as an intercurrent affection or as a complication. It may seem immaterial to discuss the question whether a disease occurring in the course of another is a true complication or a mere intercurrent affection, but the position of medicine as a science has been achieved by noting and preserving such distinctions. An intercurrent affection is something accidental—*i. e.*, no more liable to happen to a patient affected with a given disease than to one not so affected; while a complication is a disease, or a process, secondary to and more or less dependent upon another. Intestinal hemorrhage, intestinal perforation, and rupture of the spleen are complications of typhoid fever; the latter exceedingly rare, but none the less a complication. Erysipelas, pneumonia, and diphtheria, being due to separate infections, are intercurrent affections. Every affection that follows typhoid fever is not entitled to be called a sequela. There must be an etiological connection between them. The stage of convalescence from typhoid fever is one of great physical susceptibility. The immunity from one infectious disease that has been conferred upon a patient who has successfully passed the ordeal of typhoid fever, is at the price of a temporary increased liability to other affections. These, however, are not, as just stated, necessarily sequela except in an etymological sense, for their only connection with typhoid fever may be chronological. It must be confessed that it is sometimes difficult to recognize the etiological connection between the sequela and the primary disease. The tendency to confound the *post hoc* with the *propter hoc* is notorious, but there are certain guiding lines that, in most cases, will lead to a solution of this interesting diagnostic problem. One of them is *continuity*. For example, the mental faculties are always more or less impaired in cases of typhoid fever, but in mild cases this may be almost unrecognized, because no demands are made upon them. If, however, after fever has ceased and muscular strength has returned, we observe a marked insufficiency in the performance of mental operations, we naturally attribute the condition to the recent fever. There has been no return of mental health. The recuperative powers of the body have, in this instance, been greater than those of the mind. In this manner we recognize melancholia, dementia, and mania, as sequela of typhoid fever, even though they may have been preceded by an interval of apparent mental health. To compare small things with great, the alopecia that follows typhoid fever is recognized as a sequela not only because of its constant occurrence, but because it is known to be a result of febrile processes in general. Peripheral neuritis is a genuine sequela of typhoid fever, although not so frequently a result of the typhoid as of the diphtheritic poison. Before regarding peripheral neuritis as a genuine sequela of typhoid fever, we should, however, be

able to exclude the action of severe cold and traumatism.

Arthritis is an undoubted sequela of typhoid fever, though a rare one, and it is recognized as such by certain peculiarities that distinguish it from other non-typhoidal forms of inflammation of the joints.

There are certain facts connected with this case that make it somewhat exceptional. The patient is a woman, thirty years of age, who previous to the attack of typhoid fever was perfectly healthy. Now, statistics show that arthritis in the course of typhoid fever is more prevalent in males than in females—according to Keen<sup>1</sup> the proportion is 3 to 1; according to Bazin,<sup>2</sup> 4 to 1.

It has also been proved statistically that the affection is most frequent at about the age of eighteen, and in individuals of scrofulous diathesis. The hip, knee, shoulder, ankle, and elbow are the principal joints affected.

The chief questions connected with cases of this sort are: 1. Is the arthritis a manifestation of rheumatism brought to light by the typhoid fever? 2. Is it a manifestation of pyemia? 3. Is it an affection peculiar to typhoid fever and induced by its specific poison—*i. e.*, is it a genuine sequela?

The disease differs materially from rheumatism in several fundamental particulars. In the first place it is monarticular; secondly, it has a marked tendency to suppuration and to the formation of ankylosis; and, finally, it has no tendency to involve the heart.

The question whether the affection is pyemic is sometimes more difficult to decide than in the present instance. In one patient the joint-affection was not ushered in by chill, fever, or, in fact, by any constitutional symptoms. The temperature has pursued a regular course; the appetite and digestion have not been impaired, and the patient has been steadily improving. The onset and progress of the joint-disease have been most insidious. Pyemia may certainly be excluded, notwithstanding the fact that there was a focus of suppuration due to a hypodermic injection of ergotine administered on account of intestinal hemorrhage.

The arthritis must, therefore, be regarded as due to the typhoid infection, and consequently as a genuine sequela.

The prognosis of these arthritic complications is by no means unfavorable. As a rule, according to Keen, the effusion is gradually absorbed, and the joint is restored to its former usefulness. There is one possibility that particularly concerns the hip-joint, namely: spontaneous dislocation. The distention from fluid is sometimes so great as to stretch and weaken the ligaments, so that in lifting the patient in the usual manner, by placing one arm under the back and the other beneath the knee-joints, there is danger of the head of the femur slipping out of its socket.

With reference to treatment, salicylate of sodium, and, in fact, all the salicyl compounds, have been proved useless—another argument (*ex juvantibus*) against its rheumatic nature. Quinine is much more likely to be of service. The joint should be placed in such a position as to make it most useful in case of subsequent anky-

<sup>1</sup> Toner Lecture, 1876, On the Surgical Complications and Sequela of the Continued Fevers.

<sup>2</sup> Thèse de Paris.

losis. For example, the arm of this patient should be flexed to such an extent as to enable the hand to reach the mouth, so as to take part in the act of eating.

Blisters and tincture of iodine are both serviceable, and of the two I would give the decided preference to the first. The system should be supported by suitable food and tonics, and the nutrition of the muscles concerned in the motion of the joint should be maintained by massage and faradization. The latter injunction is most important in case the disease is of protracted course; for there is undoubtedly an intimate trophic connection between the joints and the muscles, or, to state it differently, the atrophy of the muscles connected with a diseased joint is greater than can be reasonably attributed to mere inaction.

## CLINICAL MEMORANDA.

### A CASE OF SUPPURATIVE PYELO-NEPHRITIS CONSEQUENT UPON RENAL CALCULUS; NEPHRECTOMY BY LAPAROTOMY; RECOVERY.

BY MANNING SIMONS, M.D.,

PROFESSOR OF GENERAL SURGERY IN THE MEDICAL COLLEGE OF THE  
STATE OF SOUTH CAROLINA.

MRS. B., an energetic, healthy woman, the mother of five children, called at my office in the early part of the month of June, 1891, for advice, complaining of an uncomfortable feeling of weight and tension in the lower portion of the right side of the abdomen. She had suffered no pain, nor was she conscious of any failure of health.

By palpation a lobulated tumor was discovered on the right side, extending from the lower margin of the ribs to the crest of the ilium, reaching well over to the left side beyond the median line. It seemed to be a tense cyst, elastic, but without fluctuation. It was perfectly movable, and could be traced well back toward the right lumbar region. The uterus was found to be of normal size, and perfectly free in movement, having apparently no connection with the tumor. The true pelvis was not encroached upon by the mass, and the uterine appendages seemed to be in no manner involved. I judged that the tumor was connected with the right kidney. Pus in large quantity was found in the urine, and upon this evidence a diagnosis of pyelonephrosis was made, but, as there had been no previous history that would indicate the presence of renal calculus, we were unable to arrive at the ultimate cause of the condition. Puncture and aspiration were not thought advisable.

The patient was admitted into St. Francis Xavier's Infirmary on June 30th, and prepared for operation.

A careful estimate was made of the quantity of urine passed from day to day—an average of a quart in twenty-four hours; and microscopic observations of the urine were made for casts or other information, with negative results.

It was determined to perform laparotomy in preference to the lumbar operation, and on July 2d, with strict antiseptic precautions, an incision four inches in length, commencing about an inch above the umbilicus, was made at the outer border of the rectus muscle, through

the linea semilunaris. This line was selected in preference to the linea alba, as lying nearer the middle of the tumor. The abdominal cavity having been opened, the tumor presented itself in the opening, and a sound was made to sweep over it in search of adhesions. This instrument glided so smoothly and met with so little resistance, that it immediately became evident that the growth was retro-peritoneal. The peritoneum was, therefore, incised, when it was found that the abdominal incision was not sufficiently extensive to permit the tumor to be turned out; and it was, therefore, lengthened upward to six inches. Even with this increase of working-room the tumor could not be dislodged, and it became necessary to separate the adherent peritoneum, by peeling it off with the fingers. This procedure permitted me to verify the connections of the mass with the right kidney. Before the tumor could be turned out through the abdominal wound, however; it had to be enucleated from a thicker capsule or investment. This having been accomplished, the mass was readily brought out and its connections isolated. The tumor then ruptured spontaneously, and nearly a pint of pus was poured upon the table.

The connections of the tumor formed a short pedicle about two inches in diameter, made up of the renal vessels and ureter with their connecting tissues. This was transected with a Tait's forceps and tied in two portions with silk ligature, the last turn of the ligature including both portions of the pedicle. The lower extremity of the ureter could not be found, and therefore it had to be left untied.

The tumor being removed, a cup-shaped cavity was left represented by the envelope from which it had been enucleated, at the bottom of which was the ligatured pedicle. All ragged ends of tissue were removed with scissors, and the abdomen was flushed with boiled water. There was but little hemorrhage, but an extensive raw surface was left, from which it was probable a large amount of oozing would take place.

To meet this indication, drainage had to be provided for at the most dependent portion of the abdominal cavity practicable. A large-sized rubber drainage-tube was, therefore, passed entirely through the cavity antero-posteriorly from the upper end of the parietal incision through the bottom of the cup-shaped cavity left at the site of the tumor and brought out at the back, at the outer border of the erector spinæ muscles, two and a half to three inches from the lumbar spinous processes, and mid-way between the last rib and the crest of the ilium. The abdominal wounds were closed and dressed in the usual manner.

The operation from beginning to end consumed about forty minutes, and the patient recovered well from the anesthetic, and there was but little, if any, shock. In the evening there was some reaction, the temperature being 99.5°; the woman was somewhat restless, but had refreshing sleep; there was, however, some nausea, some probably as a result of the anesthetic. One and a half pints of urine were passed between the time of the operation and the hour of evening observation. The dressings were not disturbed, but on the morning of the second day, July 3d, as the temperature reached 100° and there was some pain at the site of the wound, the dressings were removed in order to permit of examination. There

had been a considerable discharge of a bloody nature through the posterior extremity of the drainage-tube. The cavity was, therefore, washed out through the drainage-tube with Thiersch's solution, and the wound was dressed again as before. There had been passed one pint of urine since the observation of the previous evening, and the woman had had a comfortable night.

On the third day, July 4th, the morning temperature was 99.4°. The abdominal wound was not disturbed, but the drainage-tube, from which there was very little discharge, was pulled down from the posterior end and about two inches cut off. A calomel powder was administered, followed by two and a half Seidlitz powders given in doses of half a powder every half-hour until the bowels moved. Five movements resulted.

For the first twenty-four hours the patient was allowed only a teaspoonful of hot water every hour, but on the second day, as the nausea still persisted, half of an effervescing soda powder was administered every hour or two, with the result of relieving that distressing symptom. On the third day she was permitted to take milk and lime-water in small quantity and at long intervals.

On July 5th the quantity of urine had increased to a quart in twenty-four hours, and chicken-broth was added to the nourishment. On July 7th (fifth day) the drainage-tube was removed through the posterior opening. On July 9th (seventh day) the sutures were removed and the wound appeared to have healed throughout, except at the upper extremity, where the anterior extremity of the drainage-tube lay, but suppuration had taken place at the site of several of the deep sutures, despite the care with which they had been prepared. The cavity was still washed out each day through the posterior opening with Thiersch's solution.

On July 15th (thirteenth day) the temperature, which up to this time had ranged from 99.5° in the morning to 100° at night, rose to 101°, in consequence of the development of small abscesses at the points of the deep sutures on both sides of the abdominal incision. These openings were enlarged to permit proper drainage of the pus, and the cavities of the abscesses touched with carbolic acid. The temperature remained high, with considerable oscillation between morning and evening, varying from 99.5° A.M. to 102° P.M., until July 22d (twentieth day), when the posterior opening, which had apparently solidly healed, was opened and a considerable quantity of pus was discharged. From this time the temperature remained normal.

August 1st (thirtieth day) another abscess at a suture-point was discharged at the lower extremity of the abdominal incision. After this occurrence the patient rapidly improved, and on August 10th (thirty-ninth day) she was up.

The tumor was examined by Dr. Eugene Wasdin, Professor of Histology and Pathology in the Medical College of the State of South Carolina, who reports that he found "a kidney measuring fifteen centimeters in length by twelve centimeters in breadth, lobulated and fluctuant to the touch, with much fat about the hilus. The lobules were five in number and proved to be dilated pus-sacs, the thickened capsule forming their membranes. From these at least 400 c.c. of disorganized kidney-substance and pus were taken. Occupying the pelvis and the calices and projecting

into these pus-sacs was a large uric-acid calculus with an outer covering of ammonio-magnesian phosphates. About the capsule there was an extensive growth of new connective tissue firmly embracing it. So extensive was this tissue that it obstructed the exit of purulent debris from the sacs above the stone. Careful section revealed the utter absence of any trace of parenchyma. The growth of connective tissue might account in some degree for the absence of renal pain."

The stone weighed one ounce.

#### CASE OF AMEBA DYSENTERY: WITH AUTOPSY.

BY EUGENE WASDIN, M.D.,  
OF CHARLESTON, S. C.

I WOULD add to the cases of ameba dysentery thus far reported, one that in many characteristics is very typical.

E. C., white male, about sixty years of age, a native of South Carolina, was admitted to the City Hospital on September 9th, suffering from chronic diarrhea, and died September 21, 1891. He had been absent from home in Charleston for a long time, the greater portion of which he spent in Savannah, Ga., the fortnight immediately preceding admission having been spent in Aiken, S. C. He was very weak and deaf, and it was impossible to obtain a perfect history of his illness, but his son assured the visiting physician that his father was taken sick in Savannah, and that it was due to the use of "river water."

At the time of admission the patient must have been ill about four weeks. His skin was dry and harsh, the tongue coated, the temperature 38° C., the pulse 100 and weak. Examination revealed no pulmonary trouble, the heart-sounds were clear, the liver-area slightly increased, the spleen normal, the abdominal walls flaccid.

During the twenty-four hours succeeding his admission there were eighteen evacuations of a thin, yellowish material, containing particles of food-debris, but no blood or glairy mucus. These discharges increased in frequency, and the patient died from exhaustion.

Two days prior to his death I was induced, from the peculiar features in the case, to suspect the presence of the ameba, and was kindly allowed by his physician to examine the dejecta. The discharge was obtained directly from the anal orifice upon sized paper, diluted with warm sterilized water, and examined with a moderately high power. The amebæ were observed in large numbers—from three to five in each field. During the two days before his death several examinations showed numbers of the animalcules present. They were of different sizes, the smaller being much the more animated. I also observed the so-called spores of Kartulis, the small, glistening bodies, with little or no motion, differing but little from the leucocytes present. I did not find the nucleated bodies of Kartulis.

The autopsy, three hours post-mortem, showed cadaveric rigidity not marked; hypostasis about the loins; the abdominal walls flaccid. A median incision revealed the contents of the abdominal cavity of normal appearance, with much fat about the meso-colon; the mesentery and its glands were normal; the intestine was tied at the duodenum and internal rectal sphincter, and placed in a water-bath for examination at leisure. The

upper duodenum was normal, and the ductus choledochus patent; the liver was slightly enlarged and fatty; the spleen was enlarged; the right kidney appeared normal to the eye, but the left had several retention-cysts and a thinned cortex. The lungs were normal, as were the pleurae. The heart was infiltrated with fat. The stomach was normal. I examined the intestine carefully; the entire small gut was washed and minutely inspected, but, except for a slight catarrhal secretion, it was normal, though its contents were darkened from bismuth salts; there was not a single abrasion of the mucosa.

The diseased process commenced at the cecum, which was much inflamed, with hemorrhagic patches throughout its mucosa, besides a number of shallow ulcerations, and also a number of round openings or holes, as if made with a punch, leading beneath the mucosa into extensive undermined areas. These were intercommunicating, and at times led into the shallow ulcers. The mucosa covering such areas was in many places necrotic, and its debris was noted in some ulcers. Evidently the condition of round openings into the undermined areas was common to all the processes, and the ulcers had resulted from the necrosis of the mucosa above them. These round openings were quite small—about eight or ten millimeters in diameter. The open ulcers showed the muscular coat eroded and necrotic. The ascending colon was in the same condition; in the transverse, descending, and sigmoid colon there was more marked disease of the mucosa; the ulcers were more common, the round openings less so; the entire mucosa not necrotic was very edematous, and this edema extended to muscularis and serosa, which, though "juicy," were at no point penetrated. The mucosa presented a very similar likeness to the appearances seen in chronic cystic colitis, but incision through the edematous portions showed no dilated gland cysts. The contents of the colon were a slimy, yellowish fluid, in which were found numerous amebæ perfectly quiet, to which heating, with sterilized warm water, failed to restore motion. It would seem, then, that this condition of the mucosa is peculiar to amebic colitis, as has been advocated by Councilman. In no other case have I found just this type of undermined ulceration.

This case presents a source of infection quite similar to that found in cities along the banks of the Nile, in which the retention and storage of river water, from one high-water until the next, is depended upon for all household purposes. It is the habitual use of this reservoir-water that gives rise to the disease, and has named it "Nile dysentery." In Savannah, where the infection in the case reported was contracted, the city reservoirs were, until recently, supplied from the adjacent river, and at this time, I am credibly informed, many persons prefer to use the reservoir rather than the artesian supply.

The cases found in Baltimore by Dr. Osler were infected from surface wells, several cases having been traced to the use of water from the same well. In Charleston there are a number of such wells, and in this case the possible use of such water, which is infrequent, may have given rise to the disease, but the history seems to indicate the river-water as the source of origin. The cases reported from Cincinnati, where "river water," with its wealth of surface drainage, is still used, could

possibly be traced to a like source. Thus it seems that the habitual use of surface-water from any source may be a means of transmitting the disease, but it is difficult to conceive that the animalcule could in safety reach the colon and establish its habitat there, unless the gastro-enteric tract were primarily diseased; and, although the ameba is deemed capable of inducing the changes noted in the mucosa coli under certain circumstances of gastro-enteric catarrh, and when injected into the lower bowel, as done by Kartulis, without this catarrh the infection does not seem to occur. Otherwise the disease would be much more frequent. From a study of this case, the animalcule does not seem to produce any product poisonous to the economy, nor to give rise to much pus-formation, therefore the leucocytes do not seem to be attracted by the cell-mass of the dead amebæ. Their influence seems solely mechanical; they gain entrance into the submucosa and destroy its cells. It is a process of necrosis rather than of inflammation that is the immediate result of their presence in the bowel. The course of the disease is chronic, and it usually lasts from six to eight weeks.

I am indebted to Dr. P. G. DeSaussure, the attending physician, and to Dr. B. E. Baker, resident, for their assistance.

**PENETRATING WOUND OF THE BASE OF THE  
BRAIN THROUGH THE LEFT ORBIT—  
HEMIPLEGIA—REMOVAL OF CLOTS  
FROM THE BASE OF THE  
BRAIN—RECOVERY.<sup>1</sup>**

BY ERNEST LAPLACE, M.D.,

PROFESSOR OF SURGERY AND PATHOLOGY IN THE MEDICO-CHIRURGICAL  
COLLEGE; SURGEON TO THE PHILADELPHIA HOSPITAL, ETC.

R. B., aged ten years, whilst at play on the lawn of his parents' country residence, fell on a broken fencing foil. The steel penetrated the left orbit between the inferior orbital ridge and the eyeball. The child was found a few moments later in an unconscious condition, with the instrument still in the wound. It was removed by a servant, and the child was placed in bed.

I saw the case about five hours after the accident. On ophthalmoscopic examination, the eyeball proper appeared uninjured.

There was coma, right hemiplegia, left facial paralysis, complete aphonia; the respirations were 30, the pulse 140, the temperature 104½°. Immediately above and about the center of the left orbital ridge was an incised wound about one-quarter of an inch wide, from which oozed a little blood. An exploration of the wound was determined upon. The patient was etherized, and the cutaneous wound was slightly enlarged. The handle of a Graefe cataract knife, inserted into the wound, sank almost by its own weight to a length of three and one-quarter inches into the wound, taking a direction toward the vertex and the middle line.

Inasmuch as no spiculae of detached bone could be detected, the probability was that the instrument passed through the sphenoidal fissure, thence entering the base of the brain. The eye was apparently uninjured. There was, however, complete anesthesia. The pupil was dilated and insensible to light.

<sup>1</sup> Read before the Philadelphia County Medical Society, November 25, 1891.

Treatment by venesection, morphine, quinine, strychnine, and other stimulants not controlling the symptoms, thirteen days after the accident trephining was resorted to.

**Operation.** From the direction taken by the instrument it was evident that it had penetrated the middle fossa, and that hemorrhagic clots should be sought for in that locality. The patient being etherized, a horse-shoe incision, three inches long, was made in the temporal region, down to the level of the zygomatic arch, and the tissues were lifted *en masse* from the bone. The trephine was placed at the middle of the zygomatic arch, and a three-quarter inch segment removed, consisting of the temporal bone and a small fragment of the sphenoid; the dura mater appeared much congested.

To reach the center of the base of the brain for the removal of the suspected clot, a miniature egg-beater, consisting of four loops of platinum wire, had been improvised; this was perfectly malleable, and could be insinuated between the dura mater and the skull without wounding the cerebral structures. Having reached the cavernous groove the instrument could be pushed no further; it was then turned on its axis for the purpose of catching the coagula in its loops. This was effectually accomplished, and about a teaspoonful of clotted blood was removed piecemeal.

Whilst dragging more out, considerable venous hemorrhage took place, most probably as the result of the removal of the clot that had occluded the injured cavernous sinus.

The trephined opening was immediately plugged with iodoform gauze, and a graduated compress applied over it, secured by a tight bandage about the head.

The patient reacted well from the operation; consciousness gradually returned; movement was restored, and speech was resumed.

The improvement was steady and progressive. At the end of three months the patient could sit at table. A secondary plastic operation was performed to close the wound remaining.

Six months after the accident the patient had equal use of both inferior extremities. He was able to stand and to make a few steps without support. The pupil of the left eye was somewhat contracted. There remained anesthesia of the eye and internal strabismus, indicating the existence of an injury to the ophthalmic division of the fifth pair, which supplies sensation to the eye, and an injury to the sixth pair, which supplies the external rectus, thus corroborating the suspicion that the foil had penetrated the sphenoidal fissure. The continued improvement warrants the hope of ultimate complete recovery.

**REMARKS.**—1. From the direction taken by the instrument producing the injury, it is probable that it passed through the sphenoidal fissure, wounded the cavernous sinus, the crus cerebri, and entered the left lateral ventricle.

2. The hemiplegia was due to venous hemorrhage and laceration of the crus cerebri and other structures, no spiculae of bone being detected.

3. The coma, hemiplegia, aphonia, and progressively unfavorable course of the patient were relieved by trephining, low in the temporal fossa, lifting the brain, and removing blood-clots from the seat of hemorrhage.

4. The vast amount of oozing and secretion from the opening afforded evidence of the great intra-cranial tension and of the absolute necessity of drainage.

5. Consciousness returned shortly after the relief of the intra-cranial tension. Phonation and articulation soon followed.

6. The brain is situated in an unyielding box of the cranium, and, therefore, when exposed to great irritation, little allowance has been made by nature for the resulting expansion (congestion, swelling in other parts). With a view of remedying this condition, if the brain is not in a position to expand freely, as a result of the irritation, drainage should be provided for by trephining, which meets the indication by affording a point of least resistance to the tension within the calvarium.

This principle applies to many cerebral conditions in which symptoms of general compression result from local or general irritation within the cranial cavity. That this principle found a happy application in the present case is evidenced by the great serous exudation that daily permeated the dressings.

7. We wish to emphasize the safety of trephining near the base of the skull, the ease of arresting violent hemorrhage from the sinuses of the dura mater, and the importance of drainage in all cases of cerebral injury.

8. To our knowledge, there is no other recorded case of trephining as low in the temporal region, and removal of clots from the base of the brain.

#### NITRO-GLYCERIN.

BY C. S. STEWART, M.D.,  
OF AMITE CITY, LA.

An emergency remedy, to obtain the confidence of the physician, must possess the qualities of efficiency and promptness, so that when demands are made upon it the response will justify the confidence. There is one class of emergency cases in which promptness of relief constitutes the battle, and if this necessary relief is not to be had there is frequently a fatal termination. This is in the condition in which a weakened heart already exists and additional work is suddenly thrown upon it, or the tension is increased to such a degree that its work is seriously interfered with. Of the many remedies recommended for such a condition I have found none to act more promptly, reliably, and satisfactorily than does nitro-glycerin.

This agent has the general action of the nitrites in that it "lessens arterial tension and diminishes resistance," and possesses the advantage that its action is more persistent. This quality, according to Dr. Brunton, results because "the whole of it is absorbed without decomposition," and the nitrous acid free in the blood acts powerfully, relieving strain when rupture or fatal interference with function seems imminent.

After using nitro-glycerin for several months in a variety of cases, I am fully impressed with the idea of its importance, and rely upon it with as much confidence as I do upon older and better-known remedies. Three cases will fully illustrate my experience.

**CASE I.**—N. L., a Creole negro, about sixty years old, previously healthy, was stricken with right-sided hemiplegia, and when seen was speechless and helpless, with his heart as irregular as it was possible to be. Dissolu-

tion seemed imminent, as the extremities were cold, the features congested, and the heart seemed to have more to do than it could accomplish. Nitro-glycerin was administered hypodermatically, and in a very few moments its action was made manifest by an improvement that was continued.

CASE II.—C. L., white, about sixty-five years old, in feeble health, and subject to epileptic seizures, was taken with convulsions of unusual severity, and when seen was unconscious and covered with cold, clammy perspiration; the breathing was irregular and labored; the heart was irregular, the beats feeble and at times almost stopping; the extremities were cold; and the pupils were insensible to light. Nitro-glycerin, supplemented by external and hypodermatically-administered stimulants, speedily aroused him from his seemingly hopeless condition, and consciousness was regained.

CASE III. will illustrate the beneficial effects of nitro-glycerin in cardiac and renal dyspnea. Mrs. G. was left in a damaged condition by the "grip," the heart bearing the brunt of the attack. Mitral and aortic murmurs were soon heard, followed by slight albuminuria. Matters continued with varying degrees of improvement for about six months, when every symptom seemed suddenly aggravated by unusual fatigue; edema of the extremities developed, until the legs were twice their usual size; there were very distressing dyspnea, great disturbance of the heart's action; fully 50 per cent. of albumin in urine; vision was impaired. The ophthalmoscope showed no retinitis, and there were very few casts in the urine. Among other remedies nitro-glycerin was used for its effect upon the cardiac dyspnea and for the condition of the kidneys, and with prompt relief. Cardiac tonics, diuretic mixtures, and nitro-glycerin were subsequently given with the happiest results.

Reports of the use of nitro-glycerin in asphyxia from coal-gas inhalation, and in threatened death from chloroform, have been sufficiently frequent to justify confidence, the results having been satisfactory and prompt.

In cases of nephritis accompanied by dyspnea, in which a weakened condition of the kidneys would contraindicate the use of opium or morphine, nitro-glycerin will give prompt relief to a distressing symptom, and at the same time relieve the strain upon a diseased organ.

#### [TRAUMATIC LACERATION OF THE URETHRA.

By JOHN RODMAN, M.D.  
OF ABILENE, TEXAS.

MR. J. L., forty-five years old, was gored by a bull on October 25th. I saw him at 2 A.M. on the 27th. There was a wound in the perineum involving the structures between the bladder and the rectum. The urethra was so badly lacerated that a metallic catheter introduced into the penile portion was visible for one and a half inches. A slight amount of fecal matter and considerable flatus passed through the wound, the latter for five days.

The depth of the wound was quite two inches greater than the length of the fully-inserted index finger. The lacerated right lobe of the prostate could be distinctly seen.

Urine was passed through the fistula at noon on the 26th, subject to the control of the sphincter. After per-

sistent and futile attempts to find the vesical extremity of the urethra, I was compelled to aspirate the bladder from above the pubes. This was repeated twice daily, until the 29th, when a dome trocar was left in position for two days; subsequently urination fortunately took place through the wound and has since so continued. The development of gangrene necessitated the removal of considerable perineal tissue. The wound is now suppurating freely, and is otherwise in good condition. Prior to my last visit I anticipated that I should be compelled to enter the bladder through the abdominal wall and pass through the urethra a Nélaton's catheter, with a window at the level of the urine and fastened in the abdominal wound, as it was all-important to secure drainage at the perineum without puncturing the bladder from below so as to avoid dribbling. This contingency was averted by the fortunate escape of urine through the perineum before my arrival.

Now the problem is, can the vesical and penile ends of the urethra be united? Will the wound heal over a catheter retained for the time necessary for the healing of such an extensive wound? Can I expect any better result than a perineal fistula with control of the discharge of urine? I think not.

[It would seem wise to introduce a catheter into the bladder and give the wound the opportunity to heal over the instrument. Whether the two ends of the urethra could be united by a plastic operation is a problem that could not be solved unless the patient were seen. If this is not possible and the patient had not control of the perineal fistula, the next best thing would be to open the bladder above the pubes and establish an oblique urethra in the abdominal wall.—ED.]

#### TRACHEOTOMY FOR A MELON-SEED IN THE TRACHEA.

By L. HUFFAKER, M.D.,  
OF DAISY, TENN.

A BOY, about three years old, while eating a piece of watermelon, became strangled, and sucked a seed into the trachea. The father brought him to me on July 7th for the purpose of having the seed removed. I located the seed as having passed below the vocal bands, and advised tracheotomy. Dr. Frank Trester Smith, of Chattanooga, performed the operation.

The patient was etherized, and an incision about one inch long was made in the integument. The sterno-thyroid and sterno-hyoid muscles were next separated from each other, and the cervical fascia and the thyroid plexus of veins were exposed. After controlling the hemorrhage, the trachea was opened from below upward for about three-quarters of an inch, and the seed removed. The incision in the trachea was then closed by one suture, and the incision in the integument was closed with four sutures; the wound was dressed and left for the night.

On the following morning I found some swelling, both internal and external. After bathing the parts well with carbolic water and Castile soap, I applied an ointment of vaselin and iodoform, prescribed a laxative, and directed a liquid diet. The temperature was about a degree above the normal.

On the morning of the 10th I found the patient suffering from considerable constitutional disturbance, the tempera-

ture being  $2\frac{1}{4}^{\circ}$  above the normal; the tongue was somewhat coated, and the bowels were constipated. I dressed the wound as before, and found granulations springing up. A laxative and some quinine were prescribed. On the morning of the 11th the temperature was about normal; the patient had rested very well during the night. I removed the dressing and found the wound suppurating nicely. I cleansed it again with carbolized water and Castile soap, and applied an ointment of iodoform, bismuth subnitrate, and vaselin.

On the morning of the 11th I removed the deep suture and dressed the wound as before.

On the 14th I removed two of the superficial sutures, and on the next day I removed the rest. I now discontinued the iodoform, and used as a dressing an ointment composed of bismuth subnitrate, vaselin, and carbolic acid, which I continued until I discharged the case on or about July 19th.

#### A CASE OF MALARIAL HYPERTYREXIA.

BY JAMES A. TURNER, M.D.,  
OF LITTLE'S MILLS, N. C.

ON September 5, 1891, I was called to see a negro child about two and a half years old, living in an intensely malarial locality. I found the child with the muscles of the neck, trunk, and extremities in a state of rigidity, its eyes fixed and pupils dilated. At intervals of about thirty minutes, there were paroxysms of general convulsions, which would subside in about one minute, when the child would again lapse into the former condition in which it had been twelve hours. The parents stated that it had had chills for several days, and that the day previously it had several violent convulsions. I found the temperature in the axilla to be  $106^{\circ}$ , the pulse small, and so frequent that I could not correctly count it. Thinking the convulsive condition due to the hypertyrexia, I applied cold cloths to the head and administered antipyrin hypodermatically, repeating it in thirty minutes, without any results. I then ordered the child to be placed in a tub of water just from the well, but owing to the small size of the tub and the rigid condition of the patient, I could only get it into the water to the knees. I therefore poured water from a vessel on its head, and in a short time it was sufficiently relaxed to be well covered with water, from which it was taken in eight minutes, sleeping soundly. It was dried and put to bed, the thermometer in the axilla showing a temperature of  $101^{\circ}$ . I gave calomel and quinine, and directed bromide of potash to be given through the night, and quinine in the morning. I called to see the patient on the following day, and found it in every way doing well, with the temperature normal. It was quite well in a few days.

#### RAT-TAIL SUTURES.

BY E. OLIVER BELT, M.D.,  
OF WASHINGTON, D. C.

ABOUT five years ago, while resident physician in the Presbyterian Eye and Ear Hospital of Baltimore, I saw Dr. Chisolm use fibers from the tail of an opossum for sutures in some of his eye-work. I thought such fibers a good substitute for silk, and spoke to my brother, Dr.

A. M. Belt, about it. Shortly afterward a rat was caught at his residence; he had the tail skinned and soaked for several days in water, after which, upon slight manipulation, it separated into perhaps a hundred fibers, each about eight inches in length. These were placed in alcohol and presented to me, upon request, for use in eye surgery. I found the fibers strong and much finer than those from the opossum tail, or any other animal suture, and have been using them quite extensively in suturing the conjunctiva in pterygium operations, and in advancing the recti muscles in correcting strabismus.

These sutures have been most satisfactory. As soon as moist they become agreeably soft to the eye, and have never to be removed, while silk sutures are rough and irritating as long as they remain in the eye, and their removal is somewhat painful. Patients from a distance are often detained five or six days to have the silk stitches removed, when rat-tail sutures might be used and the patient allowed to depart immediately. These sutures will no doubt be found useful to the general surgeon and gynecologist when they need strong and fine animal sutures. About once a month, for two or three days, I soak the fibers in a corrosive sublimate solution (1 : 5000), and as I have never had any trouble whatever from their use, I think it probable that this suffices to render them aseptic.

#### ENUCLEATION WITH COCAINE.

BY JOHN L. DICKEY, M.D.,  
OF WHEELING, W. VA.

I HAD a patient recently, a man aged forty, whose right eye had to be enucleated on account of a sloughing cornea resulting from an injury. As he had an organic heart disease I was afraid to use ether or chloroform. We proceeded slowly, dropping a four per cent. solution of cocaine from a pipette as we progressed, and within ten minutes succeeded in removing the ball with very little, if any, pain, and with the use of less than a dram of the cocaine solution. The patient showed none of the constitutional effects of cocaine, and made a rapid and satisfactory recovery.

#### MEDICAL PROGRESS.

*The Treatment of Goiter by Enucleation.*—LEHOTZKY (*Wiener klin. Wochenschr.*, Nos. 41 and 42, 1891) has tabulated sixty-two cases of enucleation of the thyroid gland, performed during six years at the clinic of Albert, at Vienna, partly on account of distressing symptoms occasioned by the goiter, and partly for cosmetic reasons.

In thirty-three cases the goiter was firm; six were in men, twenty-seven in women; the operation was successful in thirty-two; one case died.

The size of the nodules varied from that of a hazelnut to that of a man's fist. In one case the gland was as large as a child's head, and was suspected to be malignant, but the excessive size was found to be due to the presence of a cyst. The capsule of the gland was of varying thickness; in one case it was almost two inches thick. In most cases the limitations of the gland were well defined. Frequently there were band-like adhe-

sions, necessitating the employment of scissors, knife, and ligature. The most important and most dangerous element of the operation is hemorrhage. Slight capillary hemorrhage is the rule, even if the greatest care be exercised. In rapid operations the hemorrhage was always profuse; in such cases the wound was packed with iodoform-gauze and the vessels ligated. In all cases absolute hemostasis was secured. By ligating the various strands of adhesion before dividing them, and by treating the pedicle of the tumor in the same way, the operation may be made a bloodless one; but such a mode of procedure requires much time and more patience. In only one instance was parenchymatous hemorrhage encountered. Secondary hemorrhage occurred once. In one case the hemorrhage was so profuse that the carotids were exposed for ligature. In one case death resulted on the day after the operation, from the entrance of air into a ruptured vein; at the autopsy pneumonia and emphysema were found.

In twenty-nine cases the goiter was cystic; four were in men, twenty-five in women; in most of the cases (fifteen women) the patients were between twenty and thirty years old; the operation was successful without exception.

After division of the skin, one or more thin membranes were usually found; these were incised and the cyst dissected free; a true capsule was found only in cases in which there were also firm nodules or parenchymatous hypertrophy. Thin-walled cysts occasionally ruptured, discharging their contents over the field of operation. The removal of the empty cyst may be easy or difficult. In one case it was necessary to suture the cyst-wall and the skin; in another, to permit calcified, adherent portions to remain. The difficulty of the operation was increased when a portion of the cyst was seated behind the sternum. In one case, in which injections of iodine had been unsuccessfully made, enucleation was subsequently performed without difficulty. A suppurating cyst was successfully removed. Hemorrhage was, in general, less than in the enucleation of solid goiters, although in some cases it was profuse. In one case secondary hemorrhage occurred.

The enucleations were made with the assistance of chloroform-narcosis. In a number of cases of small tumors, local anesthesia induced by cocaine proved sufficient. Restlessness of the patient increased the difficulty of the operation. One death occurred from chloroform-narcosis following an enucleation easily and rapidly performed. The incision in the skin was made from above downward, over the most prominent portion of the tumor. Catgut was employed for ligatures, silk for sutures. When the enucleation was completed and hemostasis had been secured, a strip of iodoform-gauze was loosely laid in the wound, the extremity being brought out at the lower angle, and the skin was sutured. When the gauze was removed, the drainage canal was permitted to close by granulation.

The advantages claimed for the operation are: (1) that through a single wound several nodules or cysts may be removed; (2) that the recurrent laryngeal nerve is outside of the field of operation, and is exposed to no risk of injury; (3) that in many cases the operation is readily performed, and the course and result are satisfactory; (4) that sufficient glandular structure remains to

afford assurance against the development of the cachexia strumipriva.

In cases in which the goiter was constituted of several divisions that included the entire gland, only those portions were removed that occasioned symptoms.

**The Restoration of Defects in Tendons.**—KÜMMEL (*Wiener medicin. Presse*, No. 43, 1891) has reported the case of a coachman who, while managing a pair of balky horses, perceived a sense of pressure, followed by severe transitory pain, involving the whole of the left arm. Shortly thereafter a swelling appeared in the region of the left wrist-joint, the functional activity of the hand, however, remaining unimpaired. Several hours later severe pain in the left arm appeared. The thumb hung limp, and could be neither adducted nor extended; it felt numb and cold. The injury was considered a luxation, and treated by means of applications of lead-water. At the end of three weeks there remained no doubt that the extensor pollicis longus had been ruptured. Upon opening the sheath of the tendon it was found that the central extremity had retracted to the middle of the forearm. The distal extremity lay rolled up on the metacarpal bone of the thumb. Attempts to approximate the two segments proving unsuccessful, the diastasis of almost four inches was supplied by moderately strong, twisted silk thread. The wound in the skin was closed and the extremity was dressed in hyperextension. The first change of dressings was made at the end of two weeks, the position of hyperextension being from time to time gradually relaxed. At the end of six weeks the splint was permanently removed, and movement was carefully instituted. In the course of four weeks more the patient was able to use the thumb with considerable force. The case demonstrates the possibility of replacing defects of tendons by non-vital structure, with restoration of function. It is possible that the silk threads furnish a guide and support for the connective tissue that is to replace the defect.

**A Glioma of the Pons Varolii.**—WILLIAMS (*Bristol Medico-Chir. Journ.*, September, 1891) has reported the case of a boy of six, who, it was observed, had become tiresome and fretful and manifested some awkwardness of gait, with a tendency to stumble and subsequently to rotate. The face was drawn a little to the right; the right eye presented convergent strabismus; the pupils were large and inactive; the left optic disc was blurred; the tongue was protruded in the median line; the knee-jerks were normal; the grasp was good and equal on both sides. No complaint of headache was made. The boy was restless during sleep, kicking off the bed-clothing. He was irritable and had outbursts of bad temper. There was no vomiting and no vertigo. Hearing was unimpaired. The urine had a specific gravity of 1030; it contained no albumin, but a trace of sugar. The symptoms progressively advanced; twitching of the muscles of the face appeared; paresis of the left side developed; vomiting occurred on two occasions; the muscles supplied by the right sixth nerve became paralyzed; the left knee-jerk became exaggerated. Death ultimately resulted amid the symptoms of exhaustion. At the autopsy the ventricles and the subarachnoid space were found distended with fluid. The pons was

the seat of a new growth that involved especially the right half. The crura were enlarged, the right crus especially. The third nerves were flattened. The sixth nerves were displaced, particularly the right nerve. On histologic examination the tumor proved to be a typical glioma.

**Primary Scleroma of the Larynx.**—JUFFINGER (*Wiener klin. Wochenschr.*, No. 41, 1891) has recorded the case of a girl, seven years old, who presented herself complaining of hoarseness, which, it was stated, had followed an attack of severe, persistent pain in the chest lasting three months, for a considerable portion of which the child was compelled to stay abed. Upon laryngoscopic examination, a tumor was found below the right vocal band, attached to the posterior wall of the larynx, and projecting forward and to the left, by its presence preventing the apposition of the vocal bands. The child disappeared from observation for nine months, finally returning on account of increasing dyspnea, with which aphonia was associated. The tumor had meanwhile undergone enlargement, and the lumen of the glottis was much obstructed. The surface of the tumor was smooth, its color pale-red, its consistence firmly elastic. A diagnosis of scleroma was confirmed by the results of bacteriologic and histologic examinations. No other abnormalities were found in the respiratory tract.

A second case of primary scleroma of the larynx was observed in a boy, thirteen years old, who, it was stated, had been hoarse for six months. Examination revealed the existence of so-called subvocal chorditis, the vocal bands presenting inferiorly great prominences that came in contact anteriorly, leaving but a small free space posteriorly.

**Treatment of Myxedema by Means of Hypodermatic Injections of an Extract of the Thyroid Gland of a Sheep.**—MURRAY (*British Medical Journal*, October 10, 1891) reports a case of myxedema in a woman forty-six years old, in which manifest improvement took place in the course of the subcutaneous administration of an extract prepared from the thyroid gland of a sheep. The thyroid gland of a sheep is removed immediately after the animal has been killed, and is separated from the surrounding connective tissue and fat. The gland is cut into small pieces and placed in a test-tube containing fifteen minims each of pure glycerin and of a 5 per cent. solution of carbolic acid. The mouth of the tube is closed by a plug of cotton-wool. The mixture is allowed to stand in a cool place for twenty-four hours, and is then expressed through fine linen or gauze. The extract obtained should be kept in a bottle with a glass stopper, and remains fresh for a week. Twenty-five minims may at first be injected twice weekly. Subsequently the injections, which are conveniently made into the loose connective tissue between the scapulæ, need not be made so frequently.

**The Temperature of Epileptics.**—Before the Congress of Mental Medicine, MAIRET and BOSE (*La Médecine Moderne*, No. 35, 1891) reported that as a result of a series of observations upon epileptics kept in bed; the temperature being taken every fifteen minutes, they had determined that the temperature undergoes no change in

anticipation of a paroxysm. During the attack they were able to distinguish two periods: a convulsive and a stertorous. The former was attended with a lowering of the temperature if the seizure was a severe one; but, if the attack was mild, there was little alteration of the temperature. In the period of stertor the temperature rose three or four tenths of a degree, but this elevation was but relative, as the temperature was actually lower than the mean temperature on days on which no attacks occurred. After the attack the temperature returned to or exceeded slightly the normal. The mean temperature was a little higher on the days on which attacks occurred.

**The Constitution of the Sweat.**—From a study of the constitution of the secretion of the sudoriferous glands, GAUBE (*Comptes Rend. des Séances de la Soc. de Biol.*, November 6, 1891) has found that the sweat is of acid reaction in man, but alkaline in the horse, the cow, the dog, the cat, and the pig. Both in animals and in man the secretion contains albumin. The total amount of nitrogen in the sweat is greater than that represented by the contained urea; the excess is largely due to the presence of albumin and albuminoids. In man and in animals the sweat contains diastasic ferments, which are called hydrazymes. In man there are three—an amylase, a pepsin, and an emulsin; in the horse there are two: an amylase and an emulsin. The sweat of man contains little amylase, less pepsin, and still less emulsin; that of the horse and of several other animals contains less hydrazymes than does the sweat of man.

**Endocarditis following Circumcision.**—CZERNY (*Prager med. Wochenschr.*, No. 39, 1891) has reported the case of a child, of Israelitish parents, that was without antiseptic precautions circumcised on the fourteenth day after birth, and two weeks later presented restlessness, apparent difficulty of breathing, elevation of temperature, and loss of weight. On auscultation over the body of the heart, systolic and diastolic murmurs were heard, but the organ was not enlarged. The diastolic murmur subsequently disappeared and cardiac hypertrophy developed. Prior to the operation the heart had been auscultated, and no murmurs were heard; so that the etiological association between the operation and the endocarditis was quite clear.

**Double Subacute Glaucoma.**—Before the London Ophthalmological Society, CRITCHETT (*Lancet*, October 24, 1891) reported the case of a woman, twenty-nine years old, in which, within twenty-four hours after a severe shock, there was felt intense pain in both eyes, with vomiting and loss of vision. The eyes soon became densely hard, the pupils dilated, and the media so hazy as to interfere with a satisfactory view of the fundus. There was doubtful perception of light. The results of operative interference were not encouraging, and it was at the urgent solicitation of the patient and her mother that a double iridectomy was performed. The wounds healed favorably, but the recovery of vision was gradual and slight. The discs subsequently showed moderate cupping. At the end of fifteen years little further change had taken place.

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SATURDAY, DECEMBER 5, 1891.

## SHOULD REPUTABLE PHYSICIANS ADVERTISE AND SHOULD MEDICAL JOURNALS PUBLISH THE ADVERTISEMENTS?

THE *Journal of the American Medical Association* prints the card of a physician, and in addition gives a generous and flattering editorial "reading-notice" of its patron.

This is the fact that every American physician has to look squarely in the face, estimate at its proper value, and decide what he is "going to do about it."

Of course, far worse things are every day being done by journals that by straining the English language may be called medical. Men eaten up with vanity and self-seeking may publish their own portraits, with uproariously laudatory autobiographical notices, may write or hire the writing of wonderful puffs—"reviews"—of their own books, may found societies, and elect themselves officers of the same, and all that. To such we have become habituated, as to the foul smells of dirty streets.

But the journals that do these things are not labelled "American" in an official sense, are not the official organs of supposed reputable medical societies, and do not claim for their advertisers anything more than good looks and personal popularity. Such things deceive only those that would be fooled by the portrait of the patent-medicine

man and that see a logical connection between a man's picture and his therapeutic power, or that of his nostrum.

There is an apologetic tone about the *Journal's* "reading-notice" that apparently would excuse the advertisement on the ground that it is "only a plain professional card without puff, etc." One cannot help thinking of Thackeray's character, the girl that thought her mistake should be condoned because her illegitimate child was such a very, very small baby.

According to DR. GAINES's letter in the *Journal* there are at Hot Springs some seventeen regular and reputable physicians to some forty irregulars. In justice to themselves the remaining sixteen regulars must now insert their cards in the *Journal* or be out-generalled by the single one who has started the ball a-rolling and who receives the *Journal's* commendation. Moreover, the *Journal* must insert their cards, and, if just, must also give a eulogistic editorial "reading-notice" equally as long for each as for its first advertiser. On what grounds also can it exclude the irregulars? There are all degrees of irregularity. The insertion of the one "reading-notice" and card logically establishes the *Journal* as a self-constituted judge of reputability and regularity, unless it consents to take the advertisement of the out-and-out quack as well as that of the non-advertising physician. It would seem a strange logic that would permit the advertisements—"limited"—of the reputable and exclude those of the non-descripts and disreputable. That is giving away the whole cause and slipping the leash off the necks of the whole pack of would-be advertisers.

The affair aptly illustrates the danger that besets the question of the most limited of advertising, and also of the false ethics of the rule of doing evil that good may come, or of meeting the principleless advertiser with the weapons of his own forging. We do not mean to imply a word against the reputability of the single Hot Springs physician that has hired the advertising columns of the *Journal*. That is a question wholly irrelevant. But if one of the seventeen may or should insert his card with a "reading-notice" in one journal, the other sixteen should and must do the same, and not only in one medical journal, but in all. And if in medical, why not in the lay newspapers? And if only a card, why not the specialty? And if so much, why not a list of the cures, real or imagined? It is absolutely impossible to draw the line between limited and

unlimited advertising, or between advertising by an ethical-code-loving physician for a good purpose and by a sharper and a quack for his unlimited self-interest.

Moreover, every honorable physician in the land is waging a ceaseless struggle, often hard—and, because against secret enemies, often more hard—with quacks, and especially with the quacks inside the profession, who in sly ways are daily advertising themselves, but who are always careful to keep clear of the open methods that can be found out or proved. If the Hot Springs practitioner is logically right, or reluctantly forced by his beastly competition to advertise, so has each of us the same right and the same need.

The honorable physician at Hot Springs certainly has a hard lot; we sympathize with him most deeply and sincerely, but the way out of it all is not that unwisely inaugurated by the *Journal* and its advertiser.

#### TOTAL ABSTINENCE, OR THE MODERATE USE OF ALCOHOL?

ALL London, and indeed all England, has for several months been greatly excited over the outspoken advocacy by DR. J. MORTIMER GRANVILLE of the moderate use of alcohol. The newspapers have been filled with letters and articles from "all sorts and conditions of men" advocating with fervor every phase of opinion concerning the question—every phase except downright drunkenness. The numerous advocates of intoxication are too busy in translating theory into practice, and thus illustrating the possible genuineness and excellence of their creed, to theorize and write about it! The thesis of GRANVILLE is, in a word, that those that practise teetotalism are white-livered, cowardly, good-for-nothing, despicable beings, and that only the drinkers are the conquerors of nations, of ignorance, and of barbarism. He says:

"Abstinence, all the world over, and in all ages, has taken, and still takes, the backbone out of a man, and leaves him a limp, invertebrate animal with a pulpy brain, a feeble intelligence, and a will which lacks the power to assert its authority over the instincts and propensities it was made to control."

That this is an outrageously exaggerated and positively untruthful statement cannot be doubted by anyone that knows history or men and that judges dispassionately.

And yet that there is much justification for the essential basis of GRANVILLE'S crusade there can also be no denying. We all have in mind the ghastly nightmare of a theory lately hurled at the world by the great TOLSTOI. According to this psychologist alcohol and tobacco are the agents made use of by the inherently devilish will of man and of humanity to murder in self the voice of conscience and of God, and thus indirectly to license the unrestrained domination of innately evil appetites and desires. The world smiled pathetically or sardonically at the preposterously rabid exaggeration of the morbid Russian. And yet, again, despite the over-emphasis and the untruth, here too there is much that serves as a justifying and supporting basis of the theory. Those that deny it any logical or *de facto* value are, in a limited way, most probably practising on themselves the horrid game that TOLSTOI so vehemently describes.

There can be no blinking the patent fact that, as human nature is now constituted, men, many men, all too many men, cannot resist the temptation to use too much alcohol, if its free use be allowed and encouraged. Whether they will or not, the "moderate users" encourage themselves or others to become immoderate users. GRANVILLE and all those of his way of thinking forget or minimize this fact. They contend for the right of private judgment in a matter that, by fatal and fateful necessity, at once becomes public judgment.

He that loves his fellow-men will acknowledge the righteousness of the Pauline maxim that if meat maketh one's brethren to offend, then he should not eat meat.

This last farrago of nonsense, that only by drinking alcohol can one become strong in will and great in deed, is unqualifiedly false. It is logically a pure *non sequitur*. Power of character may or may not coëxist with the limited use of or total abstinence from alcohol. Had strength of character been dependent upon alcohol, the evolutionary forces of Nature, the Mind behind minds, would have offered man the finished food-product, instead of the grain and the fruit and the flesh so admirably perfected.

On the other hand, the total abstainers forget one important fact: an old justification of Catholic faith and tradition is founded on the motto, *Quod semper, quod ubique, et quod ab omnibus*—what has always, everywhere, and by all, been believed, must be true. There is a profound reason for the belief that the very widespread, if not universal, use of alcohol in

all ages and by all peoples corresponds to some deep need and use. A strong and universal appetite must have its *raison d'être* in some physiological utility, which neither the pathological degradations of drunkenness nor the heroic zealotry of prohibition can either wholly cancel, perfectly conceal, or effectually disprove.

In the exercise of their calling, in dealing with disease, physicians have no manner of doubt about interposed with judgment and discrimination. With a the efficacy and therapeutic value of alcohol administered to their patients' good, they will certainly continue so to advise its use.

But in a certain true, though limited, sense, senility is a pathological condition, and the sense in the justifiable, half-therapeutic, half-hygienic use of which it is pathological points the indication for alcohol. A very wise man put the rule into an apothegm, too sharply drawn indeed, but expressive of the physiological law: "No man should use alcohol before he is forty-five years of age; everyone should use it after this age." Is it not true that usually, and under normal circumstances and strains, Nature endows the young with such assimilative powers, such a capital stock of vital energy in the bank of organization, that up to an indefinite time in life the common foods are sufficiently powerful and assimilable to fit the body to cope with the severest tasks and the mind to fulfil the most exacting duties? Is it not also true that a time comes, usually between forty and fifty, when the reserve forces seem less spontaneous or so easily exhausted that the readily oxidizable food and nourishing stimulant that we call alcohol is not only useful, but quite often absolutely essential to the continued functions and demands? Does not this suggestion point to a harmonization of the views of the extremists, and to serviceable and rational use befitting discriminating and dispassionate minds, whether lay or professional?

#### THE PLACARDS AND EXHIBITIONS OF FREAKS AND MONSTROSITIES.

POPULAR exhibitions and liberally displayed advertisements of monstrosities raise the very pertinent inquiry as to the effect of such sights on unborn children. While there is a want of unanimity of opinion as to the exact manner in which monstrosities are produced, there is no reasonable doubt that certain powerful reflexes, causing strong emotions in the mother, may result in their production. It is to

be said, however, that the element of active fear has generally been markedly present in cases in which the sight of a strange or terrible object has been followed by the birth of a deformed child. A notable instance of this sort was found in the person of the "Elephant Man," who has been the rounds of the London hospitals: while visiting a menagerie his mother was greatly terrified by an elephant, which seemed about to attack her; at birth the infant's face resembled that of an elephant, and his skin presented some of the characteristics of the animal's hide. So shocking is his appearance that he is debarred from any occupation, and subsists upon the charity of the various hospitals.

Monstrosities most often result from a visual reflex, the terrifying object or occurrence having been seen; they may also develop when emotions of fear or grief have been excited by the description of a horrible object, or the narration of a fearful occurrence. Thus, in the observation of the writer, a mother who was shocked by hearing that a friend had been thrown from his horse against a dray and had his skull fractured, gave birth to a child that presented red sensitive areas upon the scalp, corresponding in location with the fracture of the skull in the person whose death had so alarmed the mother. In the *British Medical Journal* of September 19th there is an account of a case in which a pregnant woman, having been shocked by seeing four children, all of one parent, affected with talipes varus, gave birth later to twins, each of which presented double talipes varus. The *Medical Mirror* of November, 1891, reports a strange case of entire absence of the calvarium in a child, the mother of which had a conviction that the child would be thus deformed, because while pregnant she had been deeply impressed by a picture in a phrenological book showing the brain with the skull removed.

The question whether seeing a picture of such a monstrosity as LALOO would influence an unborn child cannot be categorically answered for all cases. There are women who would look upon such illustrations without emotion, while others would be shocked and terrified. There is no doubt that there is sufficient warrant for the belief in the power of hideous sights, through maternal impressions, to affect the fetus, and that the outrageous placards of the dime-museum freaks and monsters should be regulated or forbidden. The exhibition of such monstrosities to miscellaneous audiences should not be permitted, while scientific men should

be given the fullest opportunity of investigation. In general, it is doubtless true that those sights and occurrences that threaten the mother's safety and cause intense fear are those that are most influential in producing monstrosities. Among these, actual or threatened attacks by animals are especially potent, the monster resembling the animal that frightened the mother. A similar effect, less in degree, may be produced by the narration of a terrible occurrence or by the description of a hideous object. An interesting application of a belief in the potency of visual and auditory impressions during pregnancy to affect the fetus is afforded by the usages of the ancient Greeks, who were wont to surround the pregnant woman by such environment as should through sight and hearing give access to the brain of agreeable sensations only. The perfection of form that characterized the youth of ancient Greece bears witness to the influence of visual impressions upon the unborn child.

## CORRESPONDENCE.

### "WASHINGTON AS A MEETING-PLACE."

To the Editor of THE MEDICAL NEWS,

SIR: In your issue of November 14th will be found a letter from Dr. S. Weir Mitchell on the subject of the prevalence of diarrhea at Washington, D. C., during the session of the Medical and Surgical Congress which adjourned on the 25th of September last. Dr. Mitchell mentions the fact that the same epidemic influence was present at Deer Park, Md., and also at Newport, R. I., both of which places he visited immediately after the adjournment of the Congress. With equal propriety he might have called attention to other localities in the North and West, where it prevailed at the same time.

He advocates Washington as the proper and only place where this Congress should hold its sessions; and rightly so, because this is a national organization, and the Capital of the country is the most appropriate place for its triennial sessions.

The charge against the water of that city, of being the cause of the diarrhea from which so many suffered during the session of the last Congress, is not sustained by facts. It just so happened that at the time the Congress was in session, from the 22d to the 25th of September, there was an unprecedented spell of hot weather—verily a *heated term*—which extended all over the North and Northwest: a spell of weather unlike any before experienced at that season of the year. Was not this heat a potent factor in causing the bowel affections, which were not to be found in Washington alone? As a proof that the water was not the cause, we can cite the fact that the American Surgical Association has held its annual sessions in that city since April, 1884. I have attended each and all of its sessions, and I have never heard that its Fellows have been made ill by the water. The

American Medical Association held its session of 1884 and also its session of 1891 in that city; the Ninth International Congress met there at its last meeting in America; and several of the special associations, especially the Association of American Physicians, have assembled there for several years, yet none of these Associations has ever before objected to the water as unhealthy or productive of diarrhea. It is true that in 1888, when our Congress held its first meeting in that city, there was some complaint of diarrhea and bowel troubles—but that year, as this, was noted for its very warm weather late in September. Imprudence in diet was as much at the bottom of the bowel troubles as the water drunk.

Our last Congress is conceded by all who were present to have been a most brilliant meeting, one which will yield an abundant harvest of rich scientific results. Washington City is one of the most beautiful on the continent; well paved and thoroughly drained; interspersed with large parks, which purify the atmosphere and render it attractive as well as healthful. It is a city of residences, rather than a busy mart of commerce; it is a center of social refinement and destined to become the focus of intellectual and scientific work in the Western Hemisphere. This being true, it is the proper and only place where this Congress should meet. Composed, as this Congress is, of the representative leaders of medical thought in America, it is likely to exert a powerful influence upon American medicine and surgery, and should hold its sessions at the National Capital. Since objections have been raised to its meeting in September, all obstacles can and will be removed by holding its triennial sessions either in May or June, when all will agree that the weather is especially delightful in that city.

There is not much danger of the Congress being destroyed by the water of Washington.

I am, very truly,

CLAUDIUS H. MASTIN.

MOBILE, November 16, 1891.

### TOXIC EFFECTS OF ATROPINE.

To the Editor of THE MEDICAL NEWS,

SIR: A year ago a son of mine, a young man of twenty-three, went to St. Louis to study dentistry. Having some ametropia, he consulted an oculist, who for diagnostic purposes directed him for a few days to instil into the eyes a solution of atropine (gr. iv to 3j). After a number of instillations, toxic symptoms manifested themselves. The boy became delirious and at times lost his way in going from place to place. There were also febrile symptoms. The mental disturbance lasted for several weeks. At the end of six weeks the young man was sent home, when it was found that he was suffering with small recurrent abscesses of one of the external auditory canals, which gave him much distress for probably two or three weeks from the time of their first appearance. Following this, he slowly and gradually improved and now appears well. His improvement was at times, however, marked by such irritability of temper that I suspected some mental derangement. His memory, which before was excellent, was much impaired for a number of months, and now seems not so good as formerly.

*Hernan*

Applying recently for life insurance, his application was rejected by the medical director on account of the history of atropine-poisoning.

The action of the medical director was based upon an unusually unfavorable experience with cases of atropine-poisoning, an abstract of which accompanies this letter.

Respectfully,

VIRGIL MCDAVITT.

VIRGIL MCDAVITT, M.D., Quincy, Ill.

MY DEAR DOCTOR: In answer to your letter, I will say that my experience in atropine-poisoning is unquestionably an unusual one.

My first case was in a child about six years old, poisoned by eating the seeds of the deadly nightshade. It was a severe case, although it rallied from the first effects; still there seemed to result a derangement of the digestive organs from which the child never recovered. It remained comparatively well for some two years and a half, dying apparently from the more acute attack of gastritis.

My second case was in a man, about forty years old, who had a severe attack of iritis. He was under treatment and had a solution of atropine to drop in the eye occasionally. By mistake he took an overdose by the mouth and in a short time was in the peculiar condition of one who has been poisoned by this drug. After some days of delirium he recovered so far as to be considered out of danger. The iritis continued a number of weeks longer, but it was finally recovered from. From that time, however, he had occasional attacks of delirium, and was finally so broken down mentally and physically that it became necessary to send him to an insane asylum, in which he died after the lapse of a year and a half or two years.

My third case was in a woman about thirty-five years old, with some uterine disorder, in the treatment of which an ointment of belladonna was applied to the internal surface of the uterus. After the application, vision became decidedly impaired; the woman staggered, and was finally carried home from the street in this condition. For some days the symptoms were alarming, but under treatment the woman rallied, and at the end of two weeks seemed to have recovered. She was, however, never as strong as before the accident, and suffered frequently from alarming attacks of hysteria; her physical health failed, and in about three or four years she died.

My fourth case was in a man, over sixty years old, who by mistake took a large dose of atropine, supposing it to be a preparation left by his physician to quiet the pain of neuralgia from which he was suffering. He became delirious very soon afterward, and in the course of from a half to three-quarters of an hour profoundly comatose. By the use of the stomach-pump and other measures he rallied, after lying in an unconscious condition for some two and a half hours, and in the course of a week or ten days, although he was weak, he was apparently free of the effects of the poison. He never fully recovered, but lived for some three and a half years, dying of apoplexy. After having taken the poison he was never quite as clear in his mind as before.

These are the cases to which I referred. I have never observed a case of severe poisoning from the application of atropine to the eye. The case of the woman

referred to may, perhaps, belong in the same class, as it was one of poisoning by absorption from the mucous membrane of the uterus and vagina. I have never observed a case followed by abscesses of the auditory canal.

I know of no antidote for the effects or after-effects of poisoning by atropine. Opium antagonizes the primary effects, although I do not believe that the poisonous effect of the atropine is overcome by the opiate; neither do I believe atropine to be an antidote in opium-poisoning. I have always felt that the best we can do for the after-effects of atropine-poisoning is to treat the patient on general principles, trying as much as possible to overcome the debility and mental agitation by the usual mode of treatment.

Very truly yours,

THOS. A. FOSTER.

#### WORMS IN THE AUDITORY MEATUS.

To the Editor of THE MEDICAL NEWS,

SIR: In THE MEDICAL NEWS of November 21st I notice a communication from Dr. James Mitchell, concerning "Worms in the Auditory Meatus," that recalls to my mind the following case. While attending lectures at the Bellevue Hospital Medical College, New York, in 1878, a patient was brought into the lecture-room suffering from some sort of ear trouble. Professor Alexander B. Mott was the physician-in-charge. The patient was a male, white, about thirty, and evidently belonged to the lower walks of life. On being questioned by Professor Mott as to his ailment, he replied that he suffered from pain in one of his ears, and that in addition there was at times hemorrhage from the ear. These symptoms had been present during several weeks.

The lecturer took an ordinary ear-speculum, and in the meatus saw something that brought to his face a mingled expression of surprise and disgust. Still holding in place the speculum, with a light pair of dressing-forceps he picked out worms from the patient's auditory meatus, and laid them on the table. I do not recall the number, but there were certainly as many as six or seven, each about from three to six lines in length, and from half a line to perhaps a line in thickness. They were not of a perfectly white color, but of a brownish-white.

On questioning the patient as to his occupation, he replied that he was employed in a flouring-mill, and that every day he had been in the habit of lying down on top of a wheat-bin, during his "nooning," and sleeping for half an hour or longer. The lecturer thought the worms must have been weevils—or some other insect of this nature—from the grain underneath the sleeper, and ova deposited therein.

C. A. JOHNSTON.

HOPKINTON, PA.

#### NEW MEXICO AS A HEALTH RESORT.

To the Editor of THE MEDICAL NEWS,

SIR: The medical world has been reluctantly forced to turn its eyes from the German laboratories again to hygienic, supporting, and especially climatic treatment for chronic pulmonary diseases. It is admitted by intelligent observers that climate is the first factor in the successful

treatment of all chronic lesions of the broncho-pulmonary tract. At this opportune period let us have a more thorough and accurate knowledge of the climate of our own country. To this end we offer some brief observations on the climate of New Mexico, especially of that part of the Territory in the vicinity of Albuquerque. As the American Health Resort Association has reported favorably on Albuquerque as the location for its sanitarium for patients suffering from chronic pulmonary diseases, a few observations by a resident practitioner of this city may be of interest. Why New Mexico as a health resort has previously occupied such a limited space in American works on climatology is hard for the physician to understand who has personally experienced the dry, bracing, delightfully salubrious air of its valleys, table-lands, and mountains, and has seen its effects upon patients. With ten thousand inhabitants, Albuquerque is five thousand feet above sea-level, on the left bank of the Rio Grande, extending from the valley proper to the high table-land. It is twelve miles from mountains that are from seven to nine thousand feet high, issuing from the bases and cañons of which are a series of mineral springs, which in variety and quantity of medicinal ingredients will compare favorably with those of any springs of the same area on the continent. North of the city, extending from thirty-five to eighty miles, is another series of mineral springs, the waters of which cover a wide range of ingredients, the waters of some of which are thermal, others cold. The waters from some of these springs are bottled and shipped to some extent, though not so much as their virtues warrant. The waters from many of these springs, in which the natural senses detect strong medicinal properties, have never been analyzed. Coyote springs, Sandia Mountains, New Mexico, the waters of which are bottled and shipped in considerable quantities, show by analysis the following ingredients:

Iron carbonate . . . . .	13.
Magnesium bicarbonate . . . . .	13.4
Calcium bicarbonate . . . . .	48.6
Sodium sulphate . . . . .	14.
Sodium bicarbonate . . . . .	6.25
Sodium chloride . . . . .	58.6

Total in one gallon . . . . . 153.85

The rainfall here is comparatively light, most of the precipitation being in August and September. We never have a day in which the sun does not shine, and during the daytime I have never seen four consecutive hours during which the sun was hid.

The winters in this part of New Mexico are seldom colder than is the weather in the months of October and November in the Middle and Eastern States. The editor of one of our daily journals told me that he had never had a fire in the editorial or composing room of his office during any of the five or six winters that he has been publishing his paper in Albuquerque. The mornings, evenings, and nights are always cool, but seldom, even in winter, is there need of fire from 10 A.M. to 4 P.M.

A striking illustration of the beneficial effect of this climate is to be found in conversing with residents. Many of our busiest and best business men came to Albuquerque as invalids.

We would summarize our observations as to the class of cases that in this climate improve or recover health, and *vice versa*, as follows:

First. Patients with dulness in any part of the pulmonary tissues, and who are troubled with morning cough and expectoration, but who have no rise of temperature, and have not yet begun to lose weight perceptibly, do well.

Second. Patients with more diffused consolidation, with considerable constitutional disturbance, but not yet presenting cavities, are benefited or recover.

Third. Hemorrhagic cases—that is, patients who from the beginning have had slight hemorrhages, without any fever-reaction or profound constitutional disturbance—do extremely well in these altitudes. Contrary to former teachings, patients seem to be less liable to hemoptysis here than at sea-level. This does not refer to the rupture of large vessels in cavities in advanced disease.

Fourth. Patients in whom the disease is advanced, having cavities and severe febrile symptoms, are better at home; certainly so if they are ill enough to be confined to their rooms. Especially is this true of those who have not abundant pecuniary resources.

Fifth. For patients recovering from attacks of acute pleurisy and pneumonia, and having a tuberculous diathesis, an altitude such as ours is the place *par excellence*. The increased number of respirations invigorates, and the light, dry, ozonized atmosphere enters the collapsed air-cells, and acts beneficially upon the depressed and devitalized system. Patients with advanced throat or laryngeal involvement should seek lower altitudes, the moist atmosphere of Southern California, *e. g.*, being more suitable.

Sixth. Very high altitudes are, of course, known to be unsuitable for rheumatism; but at this altitude of only five thousand feet, cases of both acute and chronic rheumatism are very amenable to treatment, unless the heart-complications are severe, which apparently is not more likely to be the case than in the Mississippi Valley.

Very truly yours, W. G. HOPE.

ALBUQUERQUE, NEW MEXICO.

## NEWS ITEMS.

*Dr. Adolph Schauenstein*, ordinary professor of State Medicine at Gratz, recently died at the age of sixty-four years.

*A Medical Faculty at Constantinople*.—It is announced that a faculty of medicine is to be founded at Constantinople—the first in Turkey.

*Ernst Fleischl von Markow*, professor extraordinary of physiology in the High School of Vienna, and for many years the assistant of Brücke, recently died, at the age of forty-five, of the sequelæ of a dissecting-wound acquired in the duties of prosector to the chair of pathological anatomy. In addition to minor papers he was the author of monographs upon normal and pathological histology, general neuro-pathology, physiological optics, the law of contraction, and the relation of the heart-beat to respiration.